

Eng 3999.7.5
General catalogue (of) electrical s
Cabot Science 004829893



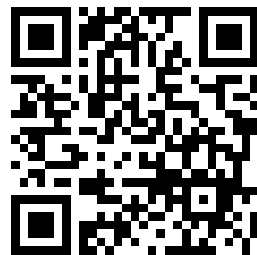
3 2044 091 936 799



This is a reproduction of a library book that was digitized by Google as part of an ongoing effort to preserve the information in books and make it universally accessible.

GoogleTM books

<https://books.google.com>



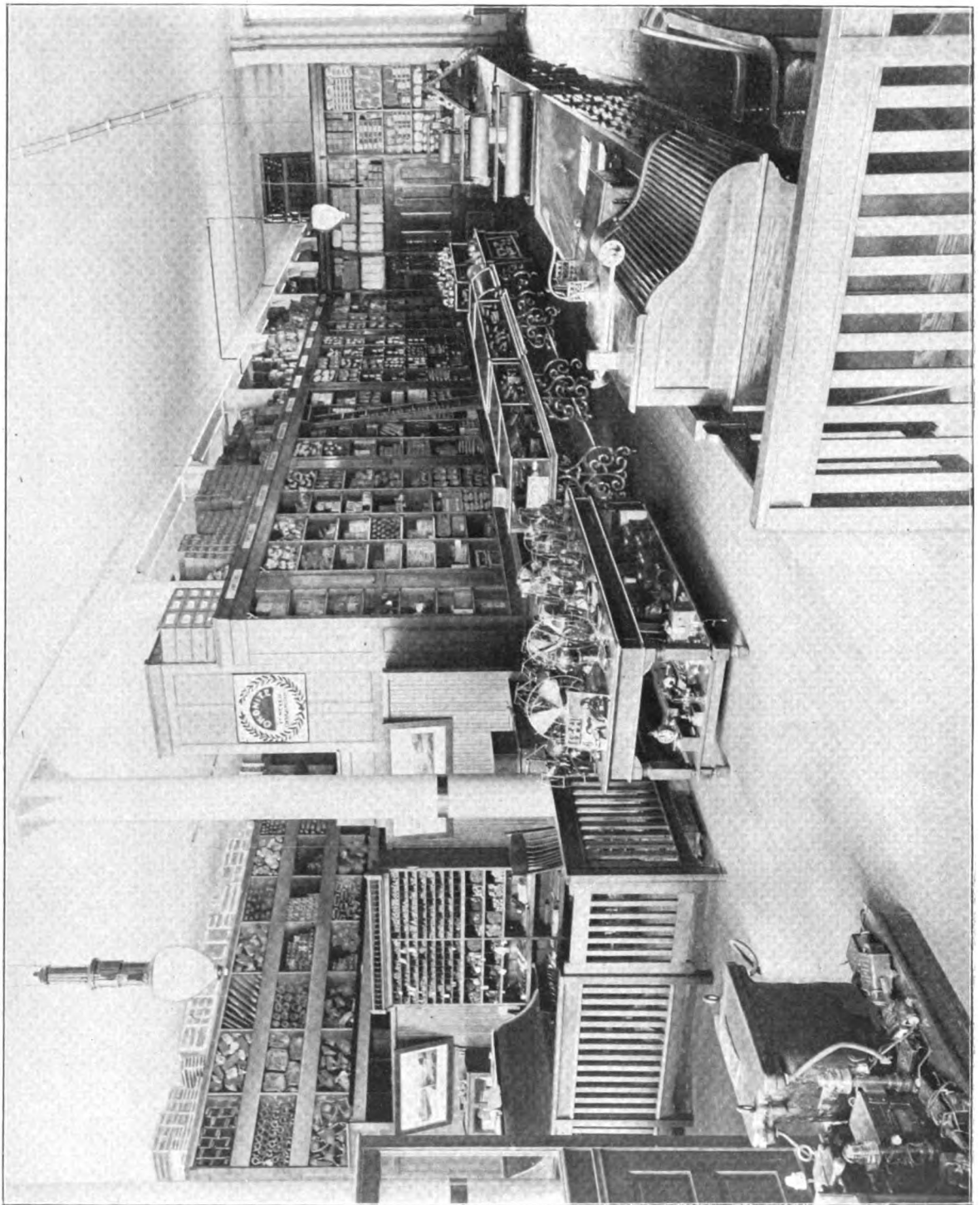
Eng 399.5.5



Harvard College Library

FROM

School of Engineering



SALESROOM-CENTRAL ELECTRIC COMPANY.

1899

CENTRAL ELECTRIC COMPANY

INCORPORATED 1887.

CHICAGO.

.. GENERAL CATALOGUE ..

GEO. A. MCKINLOCK, PRESIDENT.

CHAS. E. BROWN, SECRETARY



OFFICE AND WAREHOUSES:
264 - 266 - 268 - 270 FIFTH AVENUE,
CHICAGO, ILL.,
U. S. A.

COPYRIGHTED 1898
BY THE
CENTRAL ELECTRIC COMPANY,
CHICAGO.

JUN 20 1917
U. S. DEPT. OF
COMMERCE
BUREAU OF STANDARDS

INTRODUCTION.

In the compilation of this **General Catalogue** we have endeavored to include all material and appliances that are useful and necessary in the construction and operation of electrical installations and apparatus of every character.

We believe that the function of a catalogue is to present to the customer the most recent and best appliances, in compact and convenient form for easy and quick reference. This has necessitated some restricted descriptions, but special circulars more fully describing many of the articles noted herein, will be furnished upon application.

Simplicity and correctness have been the chief aim. Unusual care has been exercised in preparing the illustrations, many of the engravings being made direct from photographs of the articles, and in this manner giving a much better idea of appearance and construction than would be possible with descriptive text alone. Many of the tables are new and original, and we believe they will prove of considerable value to our customers.

Our Engineering Department is prepared to aid patrons with special diagrams, drawings or suggestions at any time.

The very large stock of supplies carried, and our extensive manufacturing connections enable us to offer exceptional advantages in the prompt and complete shipment of orders.

We thank you for your patronage in the past and trust we may merit an abundant share of it in the future.

Central Electric Company,

CHICAGO.



The Use of Trade Words.



The use of Trade Words when ordering, either by mail or telegraph, will greatly assist us in sending goods exactly as wanted. Many articles are so nearly alike that it would require considerable descriptive writing to clearly distinguish one from the other. The careful use of the Trade Word will obviate this difficulty.

The Trade Word for articles included in this catalogue, and also that listed in our other publications, will be the same.

An index of Trade Words will be found on pages preceding the General index.

Attention is called to our Telegraphic Code on pages preceding Trade Word Index. This has been greatly extended and improved, and we recommend it to the use of our customers.



TO THE PURCHASER.

1. Orders from persons unknown to us in order to insure prompt shipment must be accompanied by references or a New York or Chicago draft covering the amount of the purchase, or, if desired to be sent C. O. D., an amount sufficient to cover express or freight charges both ways, to insure us against loss in case goods are not accepted. Small orders to be filled by mail must be accompanied by additional money or stamps sufficient to pay postage.

2. All possible care will be taken to fill orders promptly and correctly. If orders are not perfectly clear we will write for fuller description, but when they are filled with the goods called for, same cannot be returned without special agreement.

3. **Please do not return goods to us under any circumstances without marking your name, town and state on outside of package. Write us the same day, inclosing duplicate express or freight bill of lading and mentioning date and number of our invoice on which goods were billed to you. Observance of this suggestion will save annoying delays and much correspondence.**

4. We employ careful, experienced packers and obtain receipts for all goods forwarded in "good condition." If there is any damage in transit, make prompt claim on railroad or express company and write us, explaining the nature of damage. While we cannot hold ourselves responsible for breakage or loss in transit, we are anxious to have all claims adjusted to the entire satisfaction of customers.

5. Boxing and cartage charged at cost. In ordering please say how goods are to be shipped, and if by express or freight, state which line is preferred. If no preference is given, we will use our best judgment in the interest of our patrons. **We have printed and ruled order sheets, which we will be glad to furnish regular buyers upon request.**

6. In ordering wire, state number and gauge. Where gauge is not mentioned we shall understand that wire by Brown & Sharp's American Standard Wire Gauge is wanted.

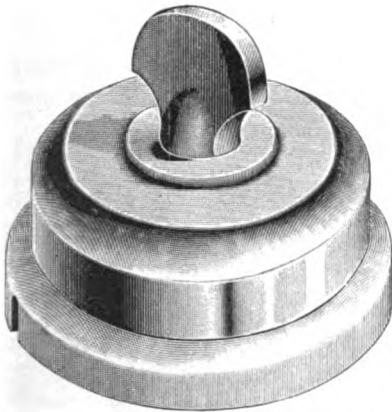
TERMS:

Accounts are payable in New York or Chicago exchange the 15th of the month following month of shipment, and when not promptly paid as above are subject to sight draft.

All prices are subject to change without notice.

INCANDESCENT LIGHT SUPPLIES.

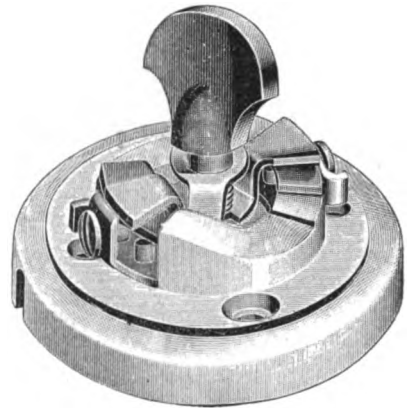
PERKINS SINGLE POLE SWITCHES.



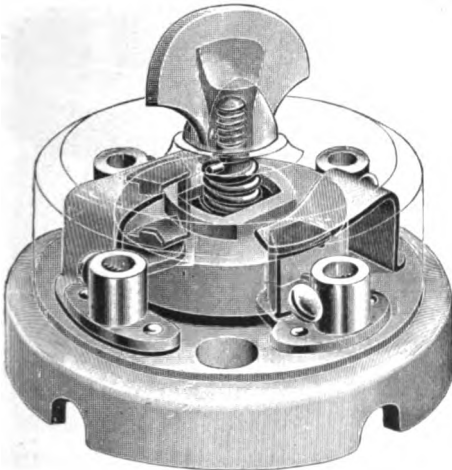
Furnished with hard rubber handle and nickel plated covers.

In ordering always specify catalogue numbers or trade word.

Will break 220 volts safely.



| Trade Word. | No. | Capacity. | | Price. |
|-------------|-----|---------------------------------------|-------|--------|
| Ignorance. | 20 | 5 Ampere, single pole, for 120 volts. | each, | \$0.27 |
| Ignor. | 21 | 10 " " " " " " " " " " " " | " | .35 |
| Illation. | 11 | 5 " " " " " " " " " " " " | " | .40 |
| Illative. | 11D | 5 " " " " " " " " " " " " | " | .60 |
| Illegally. | 16A | 10 " " " " " " " " " " " " | " | .50 |
| Illegible. | 16D | 10 " " " " " " " " " " " " | " | .70 |



THE GIBBS DOUBLE POLE SWITCH.

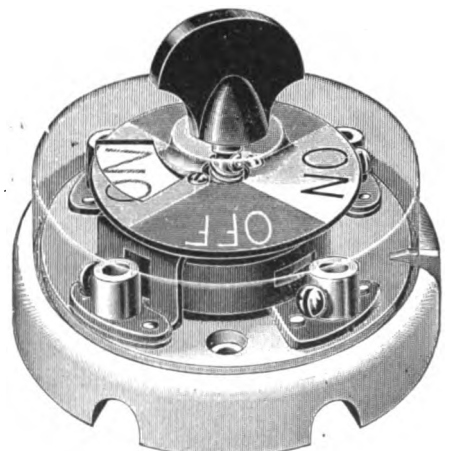
| Trade Word. | No. | Capacity. | | Price. |
|--------------|-----|----------------------------|-------|--------|
| Illiteracy. | 12 | 10 Ampere. | each, | \$0.70 |
| Illness. | 13 | 15 " " " " " " " " " " " " | " | 1.15 |
| Illuminate. | 14 | 30 " " " " " " " " " " " " | " | 1.65 |
| Illusion. | 18 | 50 " " " " " " " " " " " " | " | 3.50 |
| Illusory. | 17 | 10 " " " " " " " " " " " " | " | 1.00 |
| Imaginable. | 15 | 15 " " " " " " " " " " " " | " | 2.50 |
| Imagination. | 50 | 10 " " " " " " " " " " " " | " | .70 |
| Inability. | 51 | 10 " " " " " " " " " " " " | " | .75 |
| Illiterate. | 12D | 10 " " " " " " " " " " " " | " | .90 |
| Illume. | 13D | 15 " " " " " " " " " " " " | " | 1.35 |
| Illumine. | 14D | 30 " " " " " " " " " " " " | " | 1.95 |
| Imaginary. | 15D | 15 " " " " " " " " " " " " | " | 2.90 |
| Illusive. | 18D | 50 " " " " " " " " " " " " | " | 4.00 |

GIBBS 500 VOLT SWITCHES.

Especially adapted for Railway Circuits.

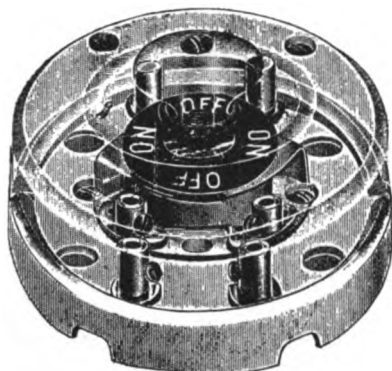
| Trade Word. | No. | Capacity. | | Price. |
|-------------|-----|----------------------------|-------|--------|
| Illustrate. | 16E | 3 Ampere, single pole. | each, | \$0.50 |
| Illustrious | 19 | 10 " " " " " " " " " " " " | " | 2.50 |
| Imagine. | 24 | 15 " " " " " " " " " " " " | " | 5.00 |
| Imagery. | 49 | 3 " " " " " " " " " " " " | " | 1.20 |

Numbers 19, 24 and 49 have indicating dial. No. 16E has not.



No. 19.

INCANDESCENT LIGHT SUPPLIES.



PERKINS FUSE SWITCHES.

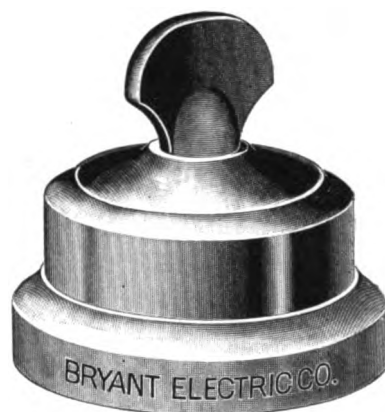
— These switches combine a fuse block or rosette and a switch, all under one piece of porcelain. The fuse is fastened to the cover and so can easily be renewed by removing the cover.

| Trade Word. | No. | | | Price Each. |
|-------------|-----|--------------------------|------------|-------------|
| Ossify. | 22 | 10 Amperes, double pole, | 220 Volts, | \$3.00 |
| Ossuary. | 26 | 3 " single " | 500 " | 3.00 |
| Ostensive. | 29 | 3 " headlight switch, | 500 " | 3.00 |

PAISTE SWITCHES.

Regular base switches shipped unless otherwise specified when ordering.

| Trade Word. | No. | Capacity Amperes. | | Price. |
|-------------|-----|---|--|--------|
| Aloof. | 802 | 5 single pole, regular or grooved base, each. | | \$0.28 |
| Alpine. | 814 | 5 three point, " " " | | .70 |
| Aloud. | 827 | 10 single pole, " " " | | .40 |
| Alpha. | 839 | 10 three point, " " " | | .80 |



PAISTE CHINA SWITCH

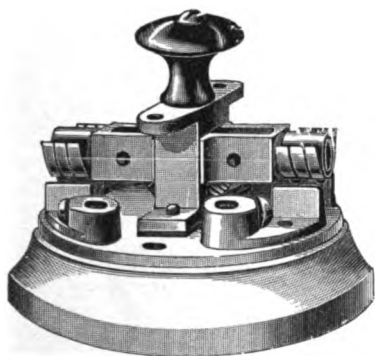


| Trade Word. | Capacity. | | Price. |
|-------------|------------------------|--|--------|
| Ramble. | 5 Ampere, single pole, | white ivory or black.. each, | \$1.10 |
| Rise. | 5 " " | " "Roman gold," flaked or band gold " " | 1.45 |
| Rite. | 5 " " | red, blue, oak, antique oak, mahogany or walnut..... " " | 1.15 |
| Robust. | 5 " three point, | cream white, ivory or black..... " " | 1.45 |
| Regent. | 5 " " | " "Roman gold," flaked or band gold..... " " | 2.00 |
| Rock. | 5 " " | red, blue, oak, antique oak, mahogany or walnut..... " " | 1.60 |

| Trade Word. | Capacity. | | |
|-------------|-----------|--|------|
| Register. | 10 " " | single pole, white..... " " | .90 |
| Rope. | 10 " " | " " ivory or black..... " " | 1.45 |
| Rental. | 10 " " | " " "Roman gold," flaked or band gold..... " " | 2.10 |
| Round. | 10 " " | " " red, blue, oak, antique oak, mahogany or walnut..... " " | 1.65 |

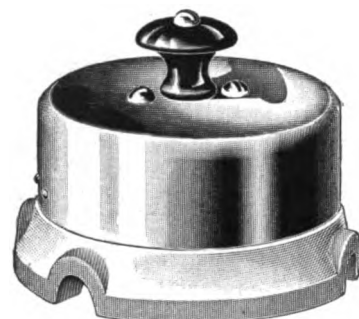
INCANDESCENT LIGHT SUPPLIES

BRYANT STANDARD SWITCHES.



Showing Cover Removed.

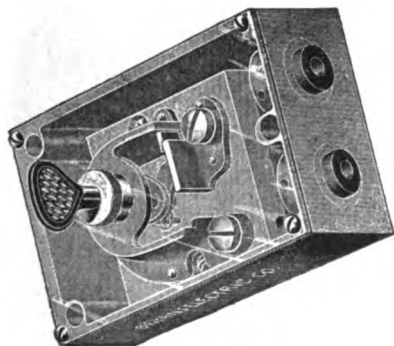
Regular base switches shipped
unless otherwise specified
when ordering.



Grooved Base.

| Trade Word. | Capacity. | | | | | Price. |
|--------------|------------|--------------|-------------------------|-------|-------|--------|
| Royal. | 15 Ampere, | single pole, | regular or grooved base | ..... | each, | \$0.75 |
| Reaffirm. | 25 | " | " | " | " | 1.00 |
| Reaffirming. | 10 | " | double pole, | " | " | .88 |
| Altitude. | 15 | " | " | " | " | 1.20 |
| Alum. | 25 | " | " | " | " | 1.45 |
| Always. | 40 | " | " | " | " | 2.00 |
| Amain. | 50 | " | " | " | " | 2.20 |

WATERPROOF MARINE SWITCH.

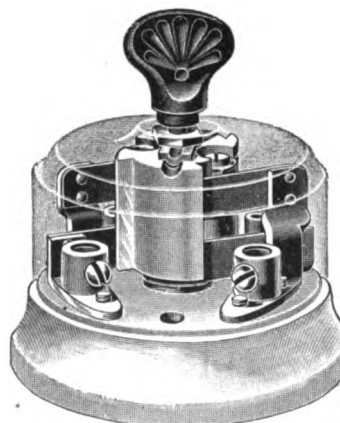


This switch is designed for marine work or for use in damp places. The wires enter through stuffing boxes having soft rubber packing.

| Trade Word. | Capacity. | Price. |
|-------------|------------------------|-------------------|
| Tame. | 10 Ampere, single pole |each, \$7.00 |

RATCHET SWITCH.

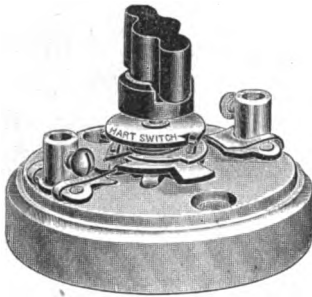
Double Pole.



| Trade Word. | Capacity. | Price. |
|-------------|-----------------------|-------------------|
| Tan. | 5 Ampere, double pole |each, \$1.00 |
| Task. | 10 " " " " " " " " | " 1.10 |

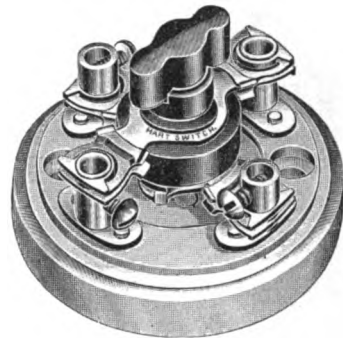
INCANDESCENT LIGHT SUPPLIES.

HART SINGLE POLE SWITCHES.



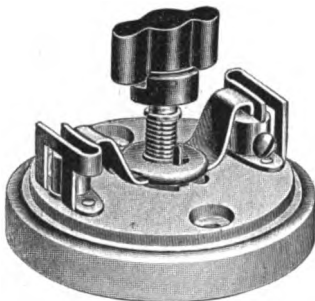
| Trade Word. | Capacity Amperes. | Price Each. |
|-------------|------------------------------|-------------|
| Alloy. | 5 with nickel plated cover.. | \$0.50 |
| Alloyage. | 10 " " " .. | .60 |

HART DOUBLE POLE SWITCHES.



| Trade Word. | Capacity Amperes. | Price Each. |
|-------------|------------------------------|-------------|
| Alloyed. | 10 with nickel plated cover, | \$1.10 |
| Abdicate. | 20 " " " | 1.50 |
| Abduction. | 35 " " " | 1.90 |
| Alluminor. | 50 " " " | 4.00 |

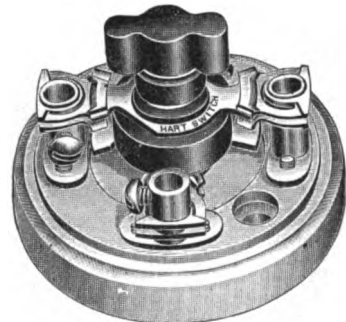
HART 500 V. SINGLE POLE SWITCHES.



| Trade Word. | Capacity Amperes. | Price Each. |
|-------------|-----------------------------|-------------|
| Abet. | 5 with nickel plated cover, | \$0.65 |
| Abeyance. | 10 " " " | 1.60 |

The 10 Ampere 500 V Hart Switches are specially designed for Electric Car Heaters and break the circuit at four points.

HART 3 AND 4-WAY SWITCHES.



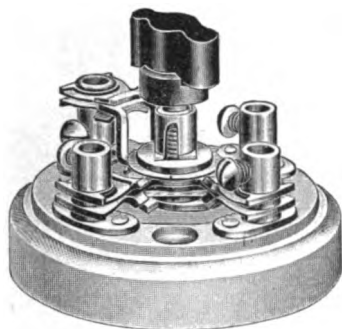
| Trade Word. | Capacity Amperes. | Price Each. |
|-------------|------------------------------------|-------------|
| Abide. | 10 3-way with nickel plated cover, | \$1.10 |
| About. | 10 4 " " " | 1.10 |

Three way switches are used for controlling lights from either one of two points.

Four-way switches are used in connection with two 3-way switches for controlling a group of lights from any one of three or more points.

INCANDESCENT LIGHT SUPPLIES.

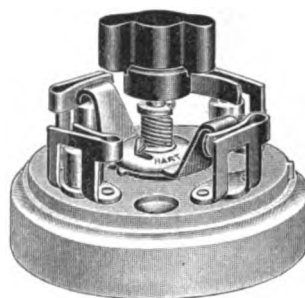
HART ELECTROLIER SWITCH.



| Trade Word. | Capacity. | Price. |
|-------------|--|--------------|
| Iambic. | 10 Ampere, with nickel plated cover..... | each, \$1.20 |

Four successive quarter turns of the handle control lamps as follows: a portion of the lamps on an electrolier; an additional portion; all the lamps; and all off.

HART 500 V. 3-WAY SWITCH.



| Trade Word. | Capacity. | Price |
|-------------|---|--------------|
| Ihex. | 5 Ampere, with nickel plated cover..... | each, \$1.20 |

HART SPECIAL SWITCHES.

Two Circuit Switch.

This switch is specially designed for lights on electric cars, where there are four lights inside, and one at each end outside the car. The four inside lights, together with one end light, are turned "on" or "off" successively by the first two quarter-turns of the handle. The next two quarter-turns of the handle turn "on" and "off" successively, the inside lights and the other end light.

| Trade Word. | Price. |
|-------------|--|
| Icing. | Standard two-circuit switch.....each, \$1.20 |
| Identical. | Flush " " " 2.10 |
| Identify. | Gang " " " 1.50 |

NO. 9 SWITCH.

The first quarter-turn lights a portion of the lamps on an electrolier; the second quarter-turn lights all of them. The third turn puts out those last lighted, and the fourth turn opens the circuit.

| Trade Word. | Price. |
|-------------|---|
| Ictene. | No. 9 Switch, Standard.....each, \$1.20 |
| Idiocy. | " " Flush " 2.10 |
| Idyl. | " " Gang " 1.50 |

DIMMER SWITCH.

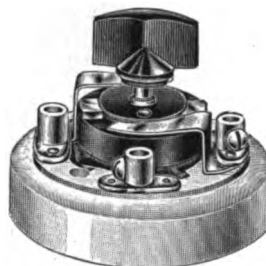
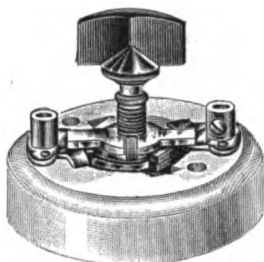
This switch is used when a dim light is required at times. Two lamps are connected in series by the first quarter-turn. The second quarter-turn cuts out one of the lamps, allowing the other to burn to full candle power. The third turn connects them again in series, and the fourth turn opens the circuit. The extra lamp, which is never burned at full candle power, may be located in any convenient place.

| Trade Word. | Price. |
|-------------|--|
| Idealist. | Dimmer Switch, Standard.....each, \$1.20 |
| Ignomony. | " " Flush " 2.10 |
| Ignoramus. | " " Gang " 1.50 |

Wiring diagrams furnished upon application.

INCANDESCENT LIGHT SUPPLIES.

CENTRAL SNAP SWITCHES.



| Trade Word. | | | Price. |
|-------------|------------------------|-------|--------|
| Postpone. | 10 Ampere, single pole | each, | \$0.30 |
| Postscript. | 10 " double " | " | .60 |
| Postulate. | 10 " 3 way | " | .60 |

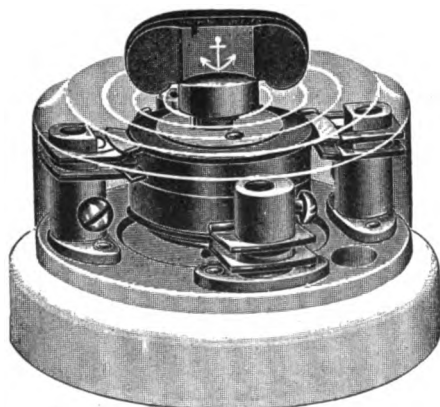
INTRIC FLUSH SWITCHES.

| Trade Word. | | Price. |
|-------------|---------------------------------|--------|
| Posture. | 5 Ampere, single pole.... each, | \$1.00 |
| Potation. | 10 " " " " " " " " " " " " | 1.05 |
| Potentate. | 10 " 3-point..... " " | 1.25 |
| Potion. | 10 " double pole.... " " | 1.35 |

INTRIC LOCK FLUSH SWITCHES.

| Trade Word. | | Price. |
|-------------|---------------------------------|--------|
| Potter. | 5 Ampere, single pole.... each, | \$1.60 |
| Pottle. | 10 " " " " " " " " " " " " | 1.70 |
| Pouch. | 10 " 3-point..... " " | 1.80 |
| Poultice. | 10 " double pole.... " " | 2.10 |

ANCHOR SNAP SWITCHES.

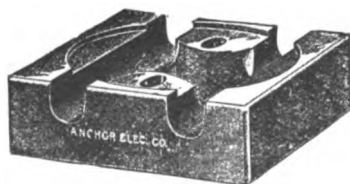


| Trade Word. | No. | | Price. |
|-------------|------|------------------------------------|--------------|
| Poultry. | 477. | 5 Ampere, single pole | each, \$0.40 |
| Pounce. | 478. | 10 " " " " " " " " " " " " | .46 |
| Pouncing. | 479. | 10 " double " " " " " " " " " " | .94 |
| Poundage. | 480. | 30 " " " " " " " " " " " " | 1.74 |
| Pounded. | 481. | 10 " 3-point..... " " | .76 |
| Poverty. | 266. | 10 " 4 " " " " " " " " " " " | .94 |
| Powder. | 168. | 5 " 500 volt..... " " | .76 |
| Powerful. | 178. | 10 " 500 " " " " " " " " " " | 1.74 |
| Powerless. | 164. | 10 " Electrolier..... " " | .94 |
| Practical. | 364. | 10 " " with dial..... " " | 1.20 |
| Practice. | 270. | 10 " car heater..... " " | 2.30 |
| Practicing. | 163. | Key Attachments for Snap Switches | |
| | |extra, | .30 |
| Praised, | 473. | Key attachments for Flush Switches | |
| | |extra, | .40 |

For price of Anchor Flush Switches add to list price of Snap Switches, per plate..... 94c.

ANCHOR SQUARE SWITCH BLOCKS.

Convenient for leading in wires to switch.



Furnished for moulding or cleat work.

| Trade Word. | No. | | Price. |
|-------------|------|---|--------|
| Praising. | 171. | Fits 5 and 10 Ampere single pole, 10 Ampere double pole, 3-point, 4-point and Electrolier Switches, each, | \$0.18 |
| Prance. | 172. | Fits 30 Ampere, double pole switch..... " " | .20 |

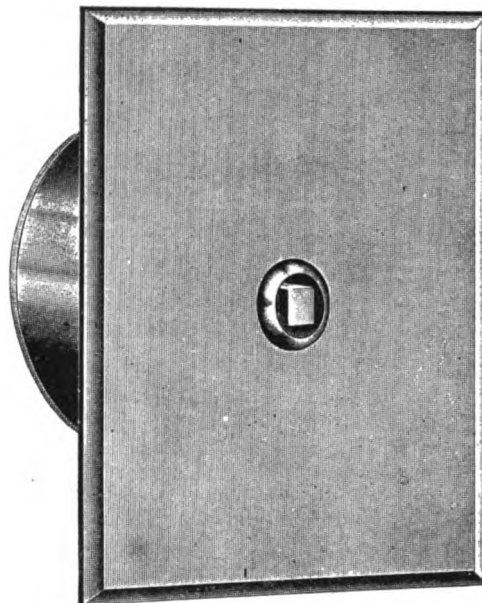
INCANDESCENT LIGHT SUPPLIES.

PERKINS FLUSH SWITCHES.

All but 5 Ampere encased in porcelain bodies.



Flush Switch.



Lock Switch.

Cuts are full size, showing exact appearance of switch.

| Trade Word. | Capacity. | Price. | Trade Word. | Capacity. | Price. |
|--------------|-----------------------------------|--------|-------------|-----------------------------------|--------|
| Inactive. | 5 Ampere, single pole. . . each, | \$1.15 | Inbred. | 10 Ampere, single pole. . . each, | \$1.50 |
| Inadequate. | 10 " " " " " " " " " " " " | 1.30 | Incage. | 10 " double " " " " " " " | 1.80 |
| Inadvertent. | 10 " double " " " " " " " " | 1.60 | Incapable. | 15 " " " " " " " " " " | 2.40 |
| Inanimate. | 15 " " " " " " " " " " " " | 2.20 | Incaruate. | 30 " " " " " " " " " " " | 3.00 |
| Inattention. | 30 " " " " " " " " " " " " | 3.00 | Incase. | 15 " triple " " " " " " " | 4.00 |
| Inaudible. | 15 " triple " " " " " " " " " | 3.50 | Incessant. | 10 " 3 point. " " " " " | 2.00 |
| Inaugurate. | 10 " 3 point. " " " " " " | 1.60 | Indecision. | 10 " 4 " " " " " " " " " " | 2.00 |
| Inborn. | 10 " 4 " " " " " " " " " " " | 1.60 | | | |

PERKINS FLUSH PLATES.

Can be furnished for any number of switches and in any style. We carry in stock plates from two to eight hole, finished in nickel. Special finishes supplied as ordered.

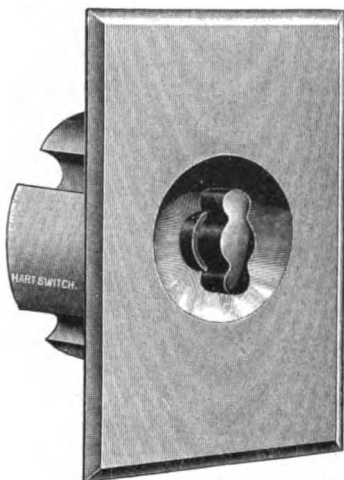
| Trade Word. | Price. |
|---|--------|
| Indecorous. Per hole per plate. | \$0.80 |

We also carry in stock Iron Wall Boxes for all styles of Perkins Flush Switches, mounted singly or in gangs. Prices quoted on application.

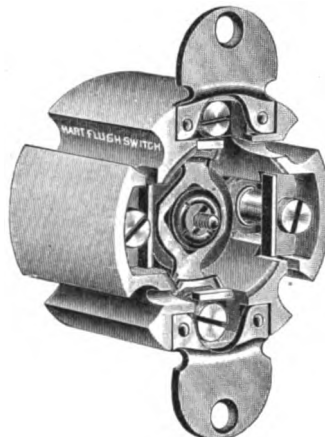
INCANDESCENT LIGHT SUPPLIES

HART FLUSH SWITCHES.

The switches are "porcelain clad" and provided with self-adjusting handles. The binding screws are so located that the switch is connected up from the front after it is put in position in the wall, leaving no slack wire in the wall or box. All flush switches are "Indicating," showing "ON" and "OFF" by the position of the handle. The face plates of the individual and gang flush switches are made of solid brass or bronze, one-eighth inch thick.



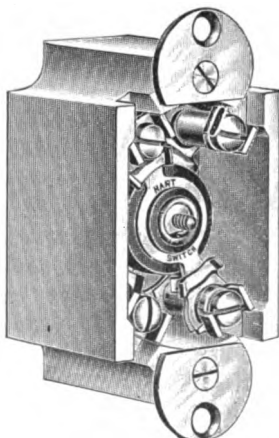
With No. 1 Face Plate Attached.



With Face Plate Removed.

| Trade Word. | Capacity Amperes. | | Size of Face Plate. | | | | Price. |
|--------------|----------------------|--------------|-------------------------|-------------------------|-----------------|-------|--------|
| | | | Length. | Width. | | | |
| Indelible. | 5 | Single pole, | 3 $\frac{7}{8}$ inches, | 2 $\frac{3}{4}$ inches, | with face plate | each, | \$1.50 |
| Indemnity. | 10 | " | 3 $\frac{7}{8}$ " | 2 $\frac{3}{4}$ " | " | " | 1.60 |
| Indenture. | 10 | Double pole, | 3 $\frac{7}{8}$ " | 2 $\frac{3}{4}$ " | " | " | 2.00 |
| Independent. | 10 | 3-Way, | 3 $\frac{7}{8}$ " | 2 $\frac{3}{4}$ " | " | " | 2.00 |
| Index. | 10 | 4-Way, | 3 $\frac{7}{8}$ " | 2 $\frac{3}{4}$ " | " | " | 2.00 |
| Oar. | 10 | Electrolier, | 3 $\frac{7}{8}$ " | 2 $\frac{3}{4}$ " | " | " | 2.00 |
| Outride. | 20 | Double pole, | 4 $\frac{1}{4}$ " | 3 $\frac{3}{4}$ " | " | " | 3.00 |
| Outtrigger. | 35 | " | 5 $\frac{1}{4}$ " | 4 $\frac{3}{4}$ " | " | " | 3.50 |
| Outright. | 50 | " | 7 " | 6 " | " | " | 7.00 |

The 5 and 10 Ampere switches can be furnished with No. 1A face plate measuring 4 $\frac{1}{8}$ inches long, 3 $\frac{3}{8}$ inches wide, at 10 cents each net, additional.



Showing Switch with Face Plate Removed.

HART FLUSH SWITCHES.

Rectangular Base, Adapted to Enter Narrow Recess or Iron Box.

| Trade Word. | Capacity Amperes. | | Price. |
|-------------|----------------------|-------------------------|--------------|
| Outrun. | 10 | Single pole, with plate | each, \$1.70 |
| Outsell. | 10 | Double pole, " | " 2.00 |
| Outside. | 10 | 3-Way, " | " 2.00 |
| Outsider. | 10 | 4-Way, " | " 2.00 |
| Outskirt. | 10 | Electrolier, " | " 2.00 |

Size { Length of base, 2 $\frac{1}{8}$ inches.
 { Width " 1 $\frac{1}{8}$ "
 { Depth " 1 $\frac{1}{2}$ "

Face plate 2 $\frac{1}{4}$ x 4 inches or No. 1 or 1A plate.

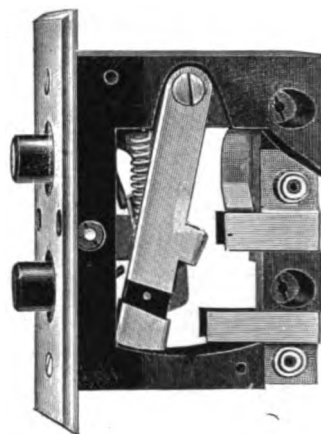
INCANDESCENT LIGHT SUPPLIES.



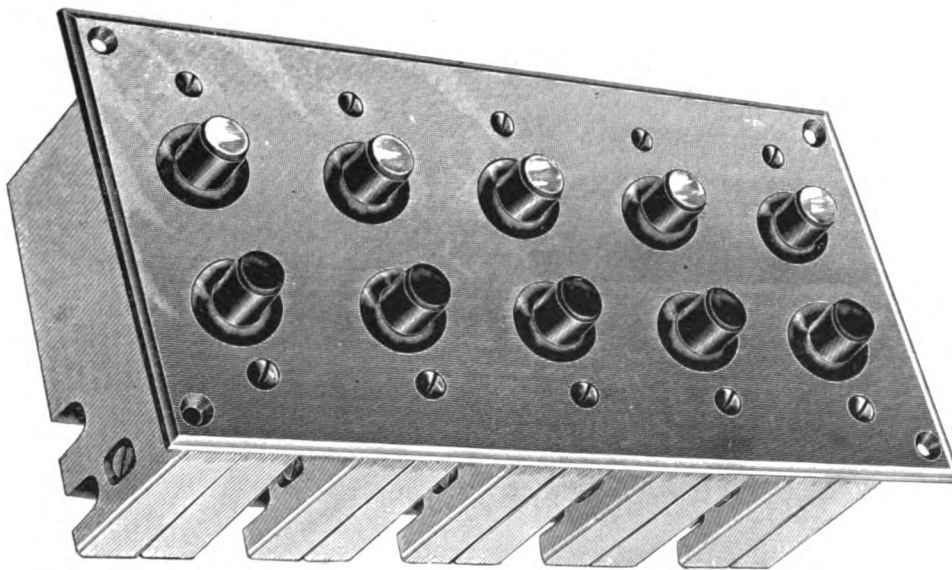
Porcelain Cases.

STEVENS' IMPROVED FLUSH SWITCHES.

Are fire and damp proof. Buttons
made of mother of pearl.

Double Pole Switch.
Casing removed.

| Trade Word. | Capacity. | | Price. |
|-------------|-------------|------------------|--------------|
| Tick. | 10 Amperes, | single pole..... | each, \$2.00 |
| Tiger. | 15 " | double " | " 2.50 |
| Tight. | 10 " | three point..... | " 2.50 |



Stevens Improved Flush Switch Gang Plate.

Stevens' switches are furnished in gangs of any number on one face plate, without iron boxes at same price as for equal number of separate switches.

WOOD MATS.

For Stevens Improved Flush Switches.

Are furnished for single switches or in gangs of any number to order, of ordinary woods such as ash, oak, pine, cherry, etc.

| Trade Word. | | Price. |
|-------------|--------------------------|--------------|
| Overcoat. | No. 1, for 1 switch..... | each, \$0.30 |
| Overcome. | No. 2, " 2 " | " .45 |
| Overdo. | No. 3, " 3 " | " .60 |
| Overdose. | No. 4, " 4 " | " .75 |
| Overflow. | No. 5, " 5 " | " .90 |

Prices of mats in rosewood and enameled woods quoted on application.

IRON WALL BOXES.

The standard boxes have open back; closed wall boxes can be furnished for single switches or gangs of any number.

| Trade Word. | | Price. |
|-------------|--------------------------|--------------|
| Overgrow. | No. 1, for 1 switch..... | each, \$0.17 |
| Overhang. | No. 2, " 2 " | " .27 |
| Overhead. | No. 3, " 3 " | " .39 |
| Overhand. | No. 4, " 4 " | " .51 |
| Overlook. | No. 5, " 5 " | " .63 |

Above prices are for standard open back iron wall boxes.

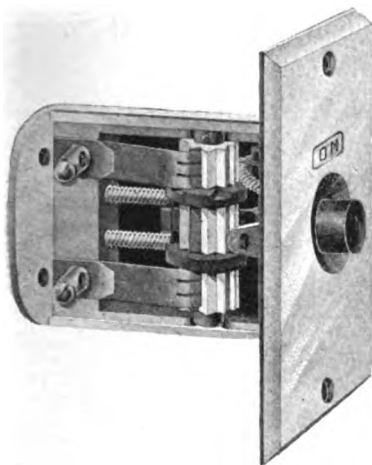
INCANDESCENT LIGHT SUPPLIES.

NEW YORK SINGLE PUSH BUTTON.

Nickel Plated Flush Switches.

The working parts of these switches are mounted in glazed porcelain boxes, made to fit the standard switch boxes.

The Single Pole and Double Pole Switches are equipped with indicating dials as shown in cut.

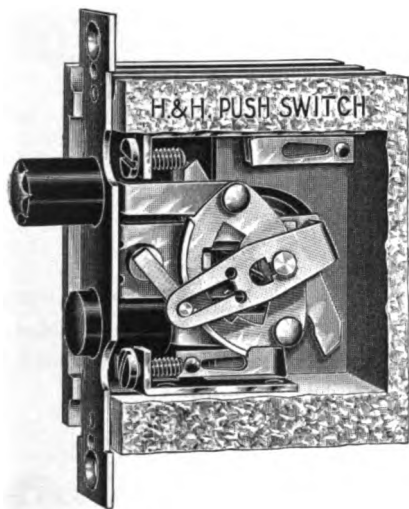


Showing Cap Removed.

| Trade Word. | | Price. |
|-------------|-----------------------|--------|
| Test. | Single pole.....each, | \$1.70 |
| Tone. | Double pole.....“ | 2.00 |
| Turk. | Three-way.....“ | 2.00 |

HART H. AND H. PUSH SWITCHES.

Action of the switch quick and positive, breaking the circuit in four places in the double pole switch. Mechanism is encased in one piece of porcelain. Contacts are of the knife switch form. Switch plates are thoroughly insulated from the mechanism. Wired from the front.



| Trade Word. | | Price Each. |
|-------------|------------------------------------|-------------|
| Pilotage. | No. 701 10 Ampere single pole..... | \$2.00 |
| Pimenta. | No. 702 10 Ampere double pole..... | 2.50 |
| Pimpled. | No. 703 10 Ampere 3-way..... | 2.50 |



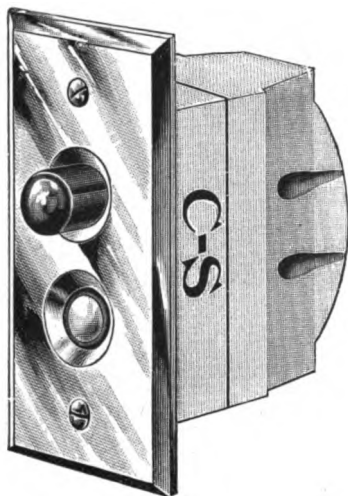
Standard finishes, nickel, pol. brass and pol. bronze. Other finishes to order. Furnished in gangs of any number up to six; above that special; prices of gang switches in proportion to the single switches.

Size of Plates.

| | | |
|----------------|----------------------|---------|
| Single switch, | 4 x 2 $\frac{1}{4}$ | inches. |
| 2-Gang “ | 4 x 4 $\frac{3}{8}$ | “ |
| 3-Gang “ | 4 x 6 | “ |
| 4-Gang “ | 4 x 7 $\frac{1}{2}$ | “ |
| 5-Gang “ | 4 x 9 $\frac{1}{8}$ | “ |
| 6-Gang “ | 4 x 11 $\frac{1}{8}$ | “ |

Gang plates for Hart push switches are designed to be mounted in iron wall frames and boxes, and are not furnished with the brass back plate ordinarily used with the regular Hart gang plate. If desired with the push switches, they can be furnished at slight extra cost.

INCANDESCENT LIGHT SUPPLIES.



C-S FLUSH, DOUBLE PUSH SWITCHES.

Nickel Plated.

Is encased in a hard, vitreous, non-absorbent porcelain, and is entirely fire-proof. By the arrangement of the button the condition of a distant lamp, whether on or off, may be told at a glance. The body of the switch is recessed in the wall flush with face plate.

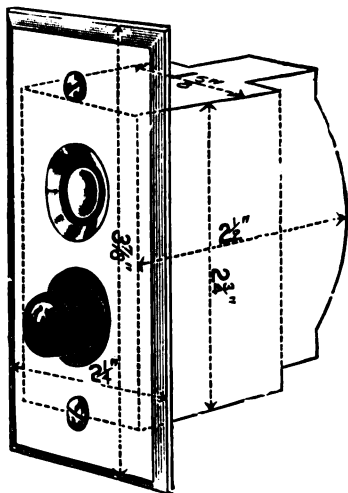
| Trade Word. | | Price. |
|-------------|----------------------------------|--------|
| Aleberry. | 10 Ampere, single pole.....each, | \$2.00 |
| Ale. | 15 " double pole..... " | 2.50 |

We are prepared to furnish plates any special finish desired.

C-S COMMUTATION SWITCHES.

Double Break.

| Trade Word. | Price. | Trade Word. | Price. |
|-------------|-------------------------|-------------|--------------------------|
| Oversee. | 5 Ampere, 4-way...each, | Alehouse. | 10 Ampere, 3-way...each, |
| | \$4.00 | | \$2.50 |



C-S FLUSH DOUBLE PUSH SWITCHES.

Dimensions.

Single pole, double pole, 3-wire and 4-wire are all same size.

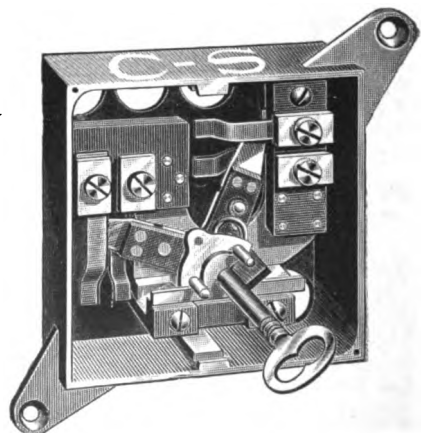
In order that intending purchasers in planning their work may have full information as to the superficial dimensions of these switches, we show herewith skeleton cut, upon which is displayed the actual outside dimensions.

C-S LOCK SWITCHES.

The mechanism of this type of switch is encased in a thoroughly insulated iron case, which acts as a wall box.

| Trade Word. | Price. |
|--------------|---|
| Alertness. | 10 Amperes, single pole, double break, \$2.00 |
| Algebraical. | 15 " double " " " 2.50 |
| Alias. | 10 " 3-way commutation..... 2.50 |
| Alienable. | Extra Keys.....per dozen, 1.25 |

NOTE.—With each of the Lock Switches two keys are furnished, one for operating and one for removing the face plates.



INCANDESCENT LIGHT SUPPLIES.

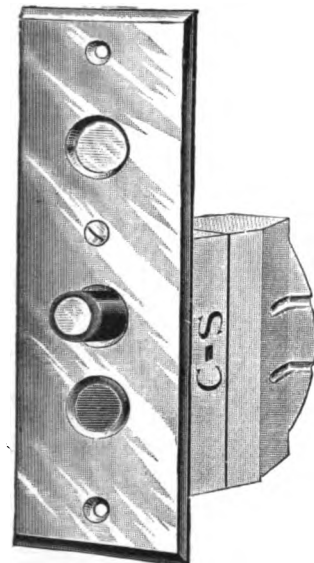
C-S FLUSH DOUBLE PUSH SWITCHES.

C-S Special Plates.

In addition to switch plate made, as:

| Trade Word. | | Price. |
|-------------|-------------------------|--------|
| Overt | 1 Bell button..... | \$0.60 |
| Overtake. | 2 " buttons..... | .90 |
| Overture. | 1 Gas lighting key..... | .90 |

Bell buttons and gas lighting keys have blind attachment to back of plate, so that the only screws required are those necessary to secure plate in position, giving it a very neat appearance. Any combination desired can be furnished.

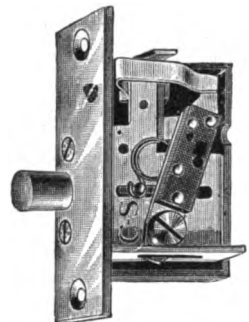


Special Plate.
One switch, one bell button.

C-S FLUSH AUTOMATIC SWITCH.

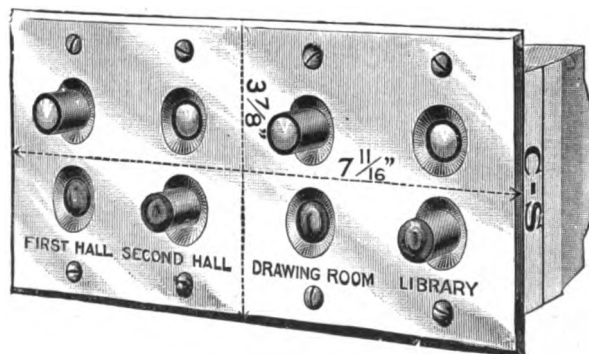
This switch is to be placed in the rabbit of a door jamb to automatically operate the light by the opening and closing of the door, being intended for use where light is required only when the door is opened. Also makes an efficient Burglar Alarm.

| Trade Word. | Price. |
|---|--------|
| Algous. 5 Ampere, single pole, pol. brass face plate..... | \$2.00 |



C-S FLUSH SWITCH.

In Gangs.



Gang Mounting.

Size of plate for four switches.

The use of Gang plates admits of an innumerable number of combinations, saves wall space besides effecting a neater appearance than by placing single switches side by side.

For switches complete in gangs, up to six switches in gang, without iron boxes, same price as for same number singles.

Above six switches in gang special.

INCANDESCENT LIGHT SUPPLIES.

FLUSH SWITCH ACCESSORIES.

For C-S or New York Switches

WOODEN MATS.

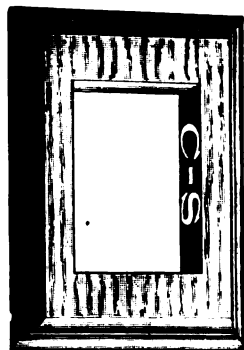
Made in any style or finish of wood.

Furnished in the common woods, oak, ash, cherry, etc.,

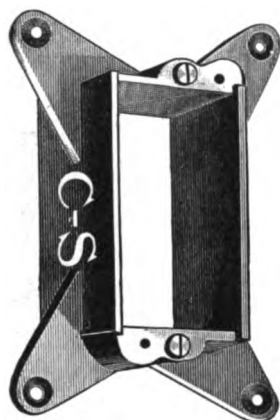
| | | | |
|--------|-----------------------------|-------|---------------|
| No. 1. | For one switch..... | each, | \$0.40 |
| | Each additional switch..... | | .10 |

Furnished in the rare woods, such as mahogany, rosewood, ebony, boxwood, white enamel, etc.

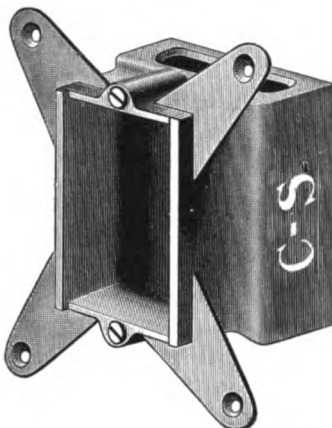
| | | | |
|--------|-----------------------------|-------|-----|
| No. 1. | For one switch..... | each, | .70 |
| | Each additional switch..... | | .25 |



IRON WALL BOXES.

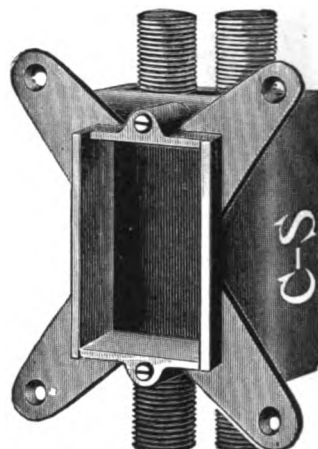


Style 200.



Style 300.

With openings for Interior Conduit.

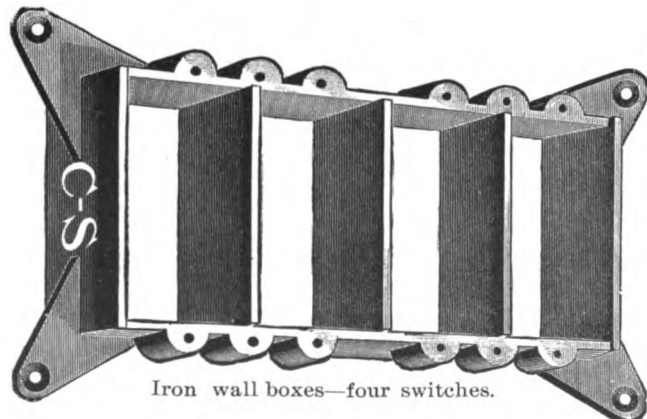


Style 400.

Without openings for conduit, so that the user can drill and tap to suit requirements.

Trade Word.

| | | | | |
|---------|------------|-----------------------------|-------|---------------|
| Owler. | Style 200. | For one switch..... | each, | \$0.15 |
| | | Each additional switch..... | | .05 |
| Owlet. | Style 300. | For one switch..... | each, | .45 |
| | | Each additional switch..... | | .15 |
| Owling. | Style 400. | For one switch..... | each, | .45 |
| | | Each additional switch..... | | .15 |



Iron wall boxes—four switches.

Dimensions of Iron Wall Boxes in Gangs.

| Trade Word. | No. Switches. | Length. | Breadth. | Depth. |
|-------------|---------------|----------------|----------------|----------------|
| Owlish. | 1. | $2\frac{1}{8}$ | $3\frac{3}{8}$ | $1\frac{5}{8}$ |
| Own. | 2. | $3\frac{1}{4}$ | $3\frac{1}{8}$ | $1\frac{1}{2}$ |
| Owner. | 3. | $5\frac{5}{8}$ | $3\frac{1}{8}$ | $1\frac{1}{2}$ |
| Oxalic. | 4. | $7\frac{7}{8}$ | $3\frac{1}{8}$ | $1\frac{1}{2}$ |
| Oxide. | 5. | $9\frac{3}{8}$ | $3\frac{1}{8}$ | $1\frac{1}{2}$ |
| Oxide. | 6. | 11 | $3\frac{1}{8}$ | $1\frac{1}{2}$ |

INCANDESCENT LIGHT SUPPLIES.

SAWYER-MAN CUT-OUTS.

Main, not Covered.

| Trade Word. | No. | Price Each |
|-------------|-------------------|------------|
| Allay | 884. 15 Ampere... | \$0.16 |
| Allegation. | 885. 25 " ... | .22 |
| Allege. | 886. 50 " ... | .44 |
| Alleging. | 887. 100 " ... | .80 |

Branch, not Covered.

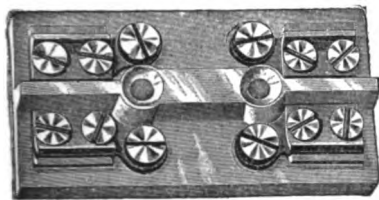
| Trade Word. | No. | Price Each. |
|-------------|-------------------|-------------|
| Allot. | 888. 15 Ampere... | \$0.16 |
| Allotment. | 889. 25 " ... | .22 |
| Alloted. | 890. 50 " ... | .60 |

Main, Covered.

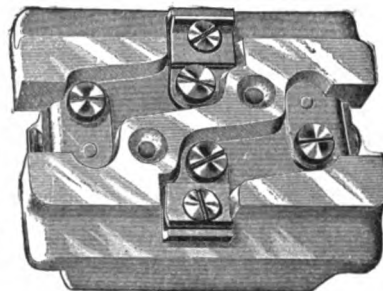
| Trade Word. | No. | Price Each. |
|-------------|-------------------|-------------|
| Naval. | 938. 15 Ampere... | \$0.18 |
| Nave. | 939. 25 " ... | .28 |
| Navigable. | 940. 50 " ... | .50 |
| Navigate. | 941. 100 " ... | .90 |

Branch, Covered.

| Trade Word. | No. | Price Each. |
|-------------|-------------------|-------------|
| Navigated. | 942. 15 Ampere... | \$0.18 |
| Navigating. | 943. 25 " ... | .28 |
| Navigation. | 944. 50 " ... | .60 |



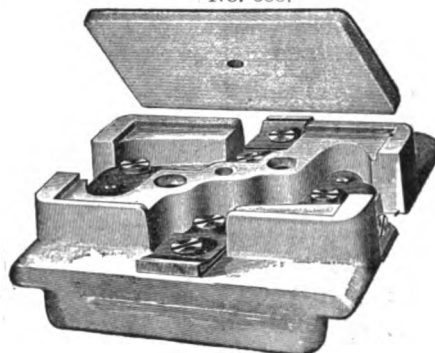
No. 884.



No. 888.



No. 938.



No. 942.

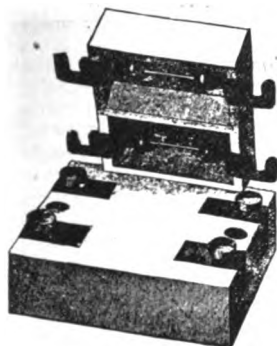
K. W. CUT-OUTS.

Main Line.

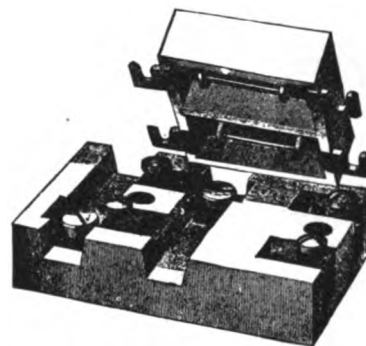
| Trade Word. | No. | Price Each |
|-------------|-------------------|------------|
| Alliant. | 878. 10 Ampere... | \$0.60 |
| Allied. | 879. 30 " ... | .95 |
| Alligate. | 880. 50 " ... | 1.10 |

Branch.

| Trade Word. | No. | Price, Each. |
|--------------|-------------------|--------------|
| Allusive. | 881. 10 Ampere... | \$0.60 |
| Allusively. | 882. 30 " ... | 1.10 |
| Allusiveness | 883. 50 " ... | 1.25 |

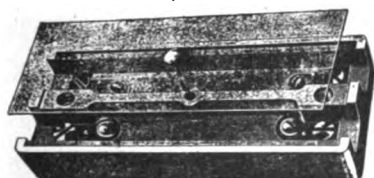


No. 878.

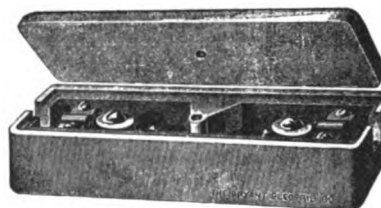


No. 881.

RAILWAY CUT-OUTS FOR 500 VOLT CIRCUIT.



No. 969.



No. 957.

| Trade Word. | No. | Price Each |
|-------------|--|------------|
| Parley. | 969. 10 Ampere, double pole, mica cover..... | \$0.32 |
| | Length of break, 3 inches. | |
| Parliament. | 1107. 10 Ampere, double pole, porcelain cover..... | .32 |
| | Length of break, 3 inches. | |

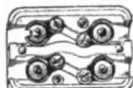
| Trade Word. | No. | Price Each |
|-------------|--|------------|
| Parlor. | 957. 25 Ampere, single pole, porcelain cover..... | \$0.48 |
| Partake. | 945. 100 Ampere, single pole, porcelain cover..... | .90 |
| Oasis. | 1232. 25 Ampere, single pole, mica cover..... | .48 |
| Obelisk. | 1233. 100 Ampere, single pole, mica cover..... | .90 |
| | Length of break, 4 1/4 inches. | |



61569



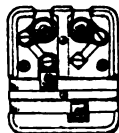
61465



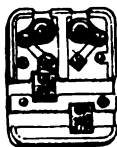
61565



62835



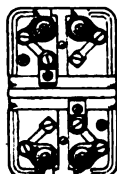
61245



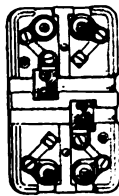
61243



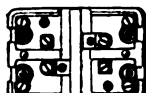
8230



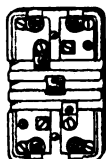
61535



61587



61487



61299



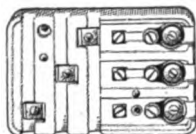
61265



61365



62235



61247



61235



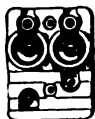
62569



62965



8020



61935



62587



62165



62199



8042



62135

INCANDESCENT LIGHT SUPPLIES.

GENUINE EDISON PORCELAIN LINK CUT-OUTS.

Mica Covered.

| Trade Word. | No. | | Price each. |
|-------------|--------|--|-------------|
| Alabaster. | 61235. | 30 Ampere, three wire, double branch cut-out..... | \$2.25 |
| Pamphlet. | 61243. | 75 Ampere, double pole, single branch cut-out, for wire up to No. 00 B. & S..... | 2.00 |
| Pan. | 61245. | 75 Ampere, double pole, single branch cut-out, for wire up to No. 4 B. & S..... | 1.50 |
| Panacea. | 61247. | 75 Ampere, three wire, single branch cut-out..... | 2.50 |
| Akin. | 61265. | 30 Ampere, three wire, main line cut-out..... | .85 |
| Alarm. | 61299. | 30 Ampere, three wire to two wire, double branch cut-out..... | 1.70 |
| Agreeing. | 61365. | 75 Ampere, three wire, main line cut-out..... | 1.75 |
| Airily. | 61465. | 30 Ampere, double pole, main line cut-out..... | .70 |
| Aisle. | 61487. | 30 Ampere, double pole, double branch cut-out..... | 1.50 |
| Oyster. | 61535. | 75 Ampere, double pole, double branch cut-out, for wire up to No. 4 B. & S..... | 2.50 |
| Agreeably. | 61565. | 75 Ampere, double pole, main line cut-out..... | 1.20 |
| Agreement. | 61569. | 75 Ampere, single pole, main line cut-out..... | .75 |
| Aground. | 61587. | 75 Ampere, double pole, double branch cut-out, for wire up to No. 00 B. & S..... | 4.00 |
| Alacrity. | 62235. | 30 Ampere, three wire, single branch cut-out..... | 1.50 |
| Ajar. | 62835 | 30 Ampere, double pole, single branch cut-out..... | 1.00 |
| Ozone. | 8230. | 10 Ampere, double pole, double branch cut-out..... | .40 |

GENUINE EDISON PORCELAIN PLUG CUT-OUTS.

| Trade Word. | No. | | Price each. |
|-------------|--------|--|-------------|
| Panade. | 8020. | Double pole, single or double cross over branch cut-out..... | \$0.60 |
| Pandect. | 8042. | Three wire, single branch cut-out | .90 |
| Album | 61935. | Double pole, " " " " | .60 |
| Alderman. | 62135. | Three wire, double " " " " | 1.50 |
| Alcove. | 62165. | " " main line " " " | .80 |
| Alert. | 62199. | Three to two wire dbl. branch " " " | 1.25 |
| Alcohol. | 62569. | Single pole, main line " " " | .30 |
| Alchemy. | 62587. | Double " double branch " " " | 1.10 |
| Alas. | 62965. | " " main line " " " | .50 |

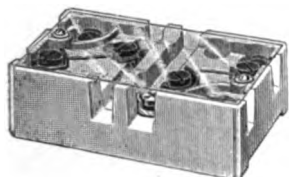
EDISON FUSE PLUGS.

For use with above cut-outs.

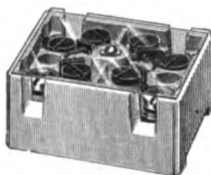
| Trade Word. | Capacity. | Price each. | Trade Word. | Capacity. | Price each. |
|-------------|----------------|-------------|-------------|-----------------|-------------|
| Pandore. | 3 Amperes..... | .10c | Panic. | 15 Amperes..... | .10c |
| Pane. | 6 " " " " " " | .10c | Panorama. | 20 " " " " " " | .10c |
| Panel. | 10 " " " " " " | .10c | Pansy. | 25 " " " " " " | .10c |
| Pang. | 12 " " " " " " | .10c | Panther. | 30 " " " " " " | .10c |

INCANDESCENT LIGHT SUPPLIES.

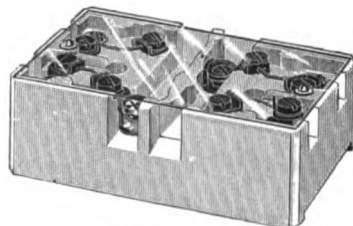
EDISON MAIN AND BRANCH BLOCKS WITH MICA COVER.



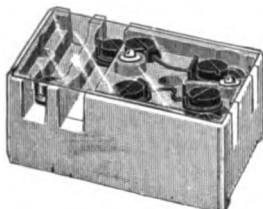
No. 1435.



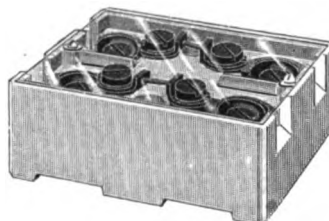
No. 1465.



No. 1497.



No. 2835.

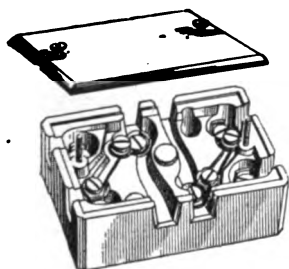


No. 1565.

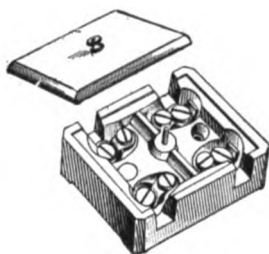
| Trade Word. | No. | | | Price each. |
|-------------|------|-----------|----------------------------------|-------------|
| Pantheon. | 1435 | 25 Ampere | D. P. double branch cut-out..... | \$0.60 |
| Pantomime. | 1465 | 30 " | S. P. main line cut-out..... | .50 |
| Pantry. | 1487 | 30 " | D. P. double branch cut-out..... | .90 |
| Papacy. | 2835 | 30 " | D. P. single branch cut-out..... | .60 |
| Papal. | 1565 | 75 " | D. P. main line cut-out..... | .85 |
| Paper. | 1567 | 75 " | D. P. double branch cut-out for | |
| | | | wire up to No. 00 B. & S..... | 4.00 |

| Trade Word. | No. | | | Price each |
|-------------|------|-----------|----------------------------------|------------|
| Papist. | 1585 | 75 Ampere | D. P. double branch cut-out for | |
| | | | wire up to No. 4 B. & S..... | \$2.00 |
| Pin. | 1835 | 30 Ampere | D. P. single branch cut-out..... | .75 |
| Pinafore. | 2285 | 20 " | 3-wire single branch..... | 1.20 |
| Pincase. | 1299 | 30 " | 3-wire to 2-wire double branch.. | 1.40 |
| Pincers. | 1235 | 30 " | 3-wire double branch..... | 1.70 |
| Pinch. | 1265 | 30 " | 3-wire main cut-out..... | .70 |
| Pinchback | 1365 | 75 " | 3-wire main cut-out..... | 1.30 |

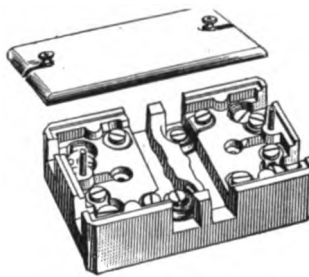
EDISON PORCELAIN COVERED CUT-OUTS.



No. 1062.



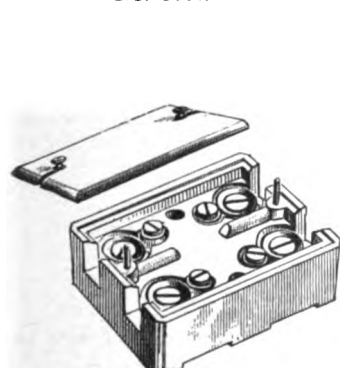
No. 1063.



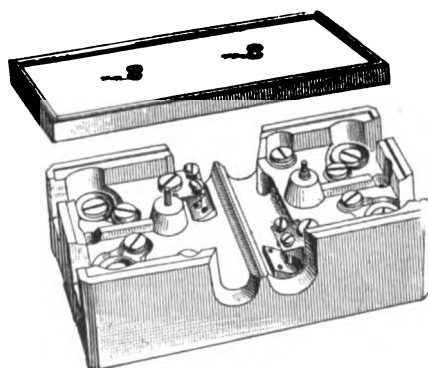
No. 1064.



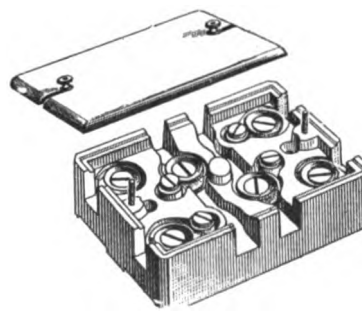
No. 1065.



No. 1066.



No. 1067.



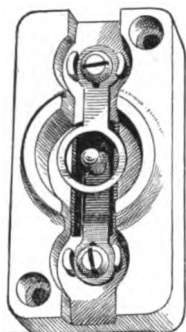
No. 1068.

| Trade Word. | No. | | | Price each. |
|-------------|------|-----------|----------------------------------|-------------|
| Papoose. | 1062 | 25 Ampere | D. P. double branch cut-out | \$0.72 |
| Parable. | 1063 | 30 " | S. P. main line cut-out..... | .55 |
| Parade. | 1064 | 30 " | D. P. double branch cut-out..... | 1.10 |
| Paradise. | 1065 | 30 " | D. P. single branch cut-out..... | .65 |
| Paragon. | 1066 | 75 " | D. P. main line cut-out..... | .95 |

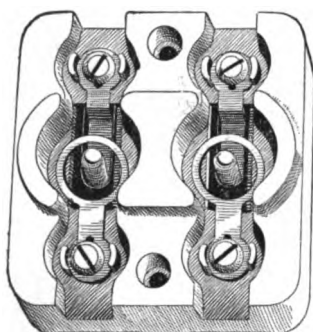
| Trade Word. | No. | | | Price each. |
|-------------|------|-----------|---------------------------------|-------------|
| Paragraph. | 1067 | 75 Ampere | D. P. double branch for wire up | |
| | | | to No. 00 B. & S..... | \$4.10 |
| Parallel. | 1068 | 75 Ampere | D. P. double branch for wire up | |
| | | | to No. 4 B. & S..... | 2.30 |

INCANDESCENT LIGHT SUPPLIES.

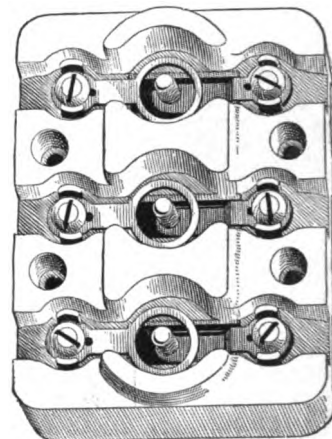
"PERU" PORCELAIN MAIN AND BRANCH PLUG CUT-OUTS.



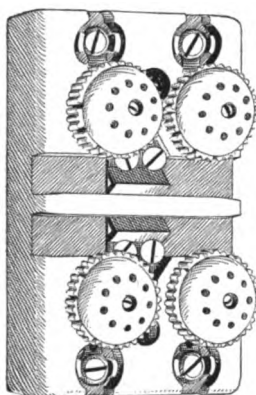
No. 5692.



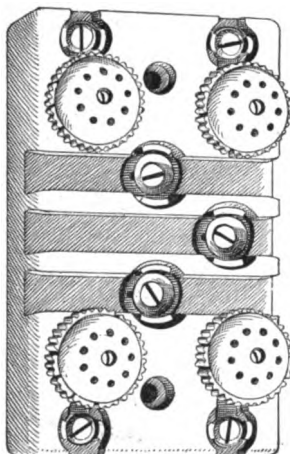
No. 9652.



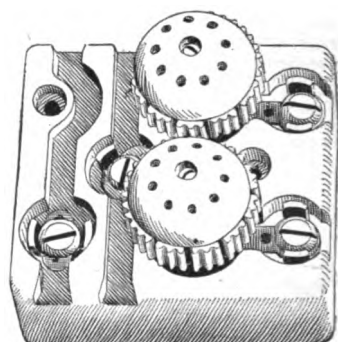
No. 1652.



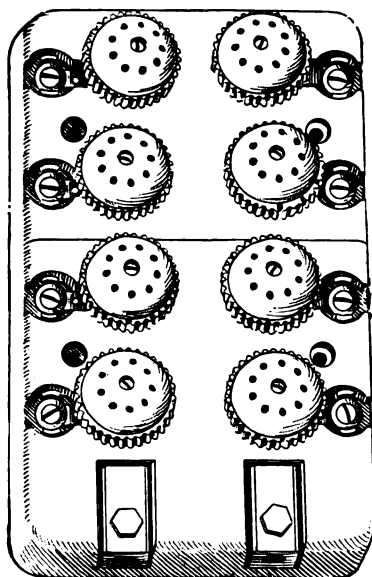
No. 4871.



No. 2991.



No. 8352.



Porcelain Multiple Circuit Tablet Board, Two Wire.

Trade Word.

| | | | | Price Each. |
|------------|-----------|---|--|-------------|
| Obey. | No. 5692. | 30 Ampere, single pole, main..... | | \$0.30 |
| Objugate. | " 9652. | 30 " double pole " | | .50 |
| Obit. | " 1652. | 30 " three wire " | | .80 |
| Parasite. | " 4871. | 30 " double pole, double branch... | | 1.50 |
| Parasol. | " 2351. | 30 " three to three wire, double branch | | 2.25 |
| Parboil. | " 2991. | 30 " three to two wire, double branch..... | | 1.70 |
| Paramount. | " 8352. | 30 " double pole, single branch... | | 1.00 |

PORCELAIN MULTIPLE CIRCUIT TABLET BOARDS.

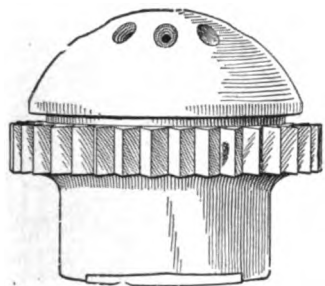
Can be built in any number of circuits from four up—all wire and fuses covered by porcelain—is therefore absolutely fireproof.

Trade Word.

| | | Price Each. |
|-----------|-----------------------------|-------------|
| Parental. | Two wire, per circuit. | \$0.65 |
| Parish. | Three wire " | .90 |

INCANDESCENT LIGHT SUPPLIES.

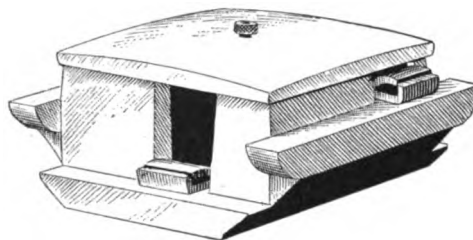
ALL PORCELAIN FUSE PLUG.



Is adapted for use in the Peru Plug Cut-outs, has a capacity of 25 Amperes. Long fuse, ventilated cap.

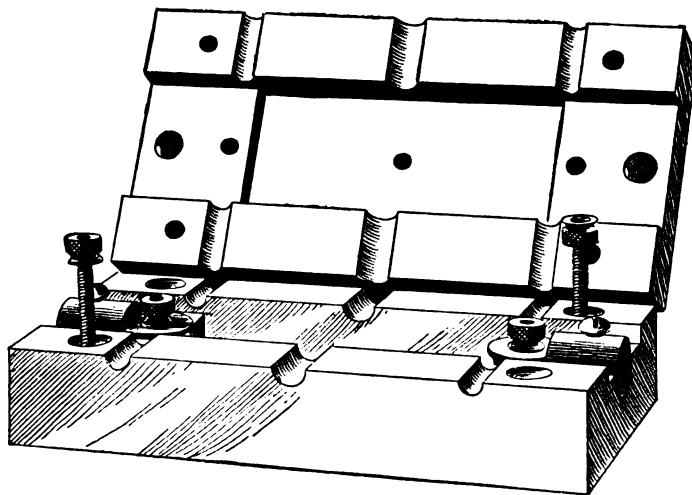
| | |
|-----------------------|--------|
| Trade Word. | Price. |
| Paralysis. each, | \$0.15 |

"PERU" COVERED PORCELAIN BRANCH BLOCK.



| | | |
|-------------|-----------------|--------------|
| Trade Word. | | Price |
| Obliquety. | 10 Ampere | each, \$0.33 |
| Obole. | 25 " | " .45 |
| Observer. | 50 " | " .75 |
| Observing. | 100 " | " 1.35 |

PORCELAIN COVERED FUSE BLOCK.



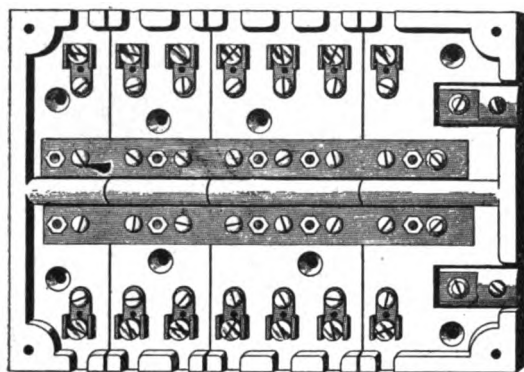
500 Volt. Single Pole.

Extra heavy porcelain, heavy brass mounting, long distance between terminals.

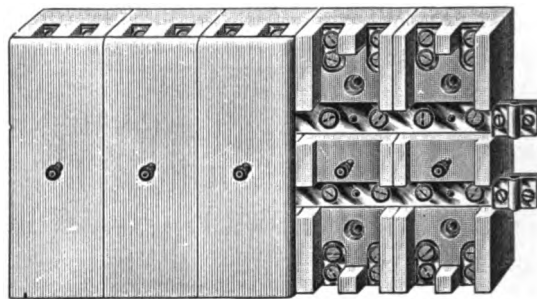
| | | |
|-------------|-----------------|--------------|
| Trade Word. | | Price. |
| Paring. | 30 Ampere | each, \$0.40 |
| Parity. | 60 " | " 1.20 |
| Parlance. | 200 " | " 2.00 |

INCANDESCENT LIGHT SUPPLIES.

PORCELAIN MULTIPLE CIRCUIT BLOCKS.



Wood Cover.



Porcelain Cover.

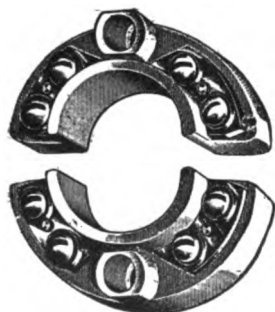
This block can be extended for any number of circuits desired, and is made in either two or three wire.

| Trade Word. | Price. |
|-----------------------------------|--------|
| Parcel. Two wire.....per circuit, | \$0.55 |
| Pardon. Three " " | .80 |

This block can be made up of any number of circuits. Each pair of circuits is covered with a porcelain cover. Is built very compact; for either two or three wire systems.

| Trade Word. | Price. |
|-----------------------------------|--------|
| Parent. Two wire.....per circuit, | \$0.50 |
| Parentage. Three " " | .75 |

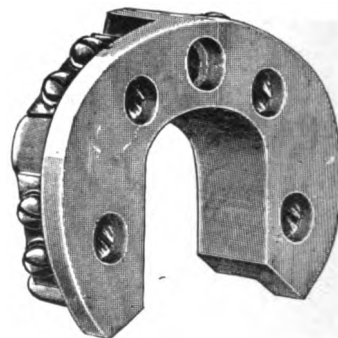
HORSE SHOE CUT-OUTS.



No. 933.
Midget Single Pole.



No. 946.

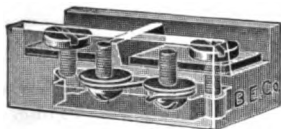


No. 930.

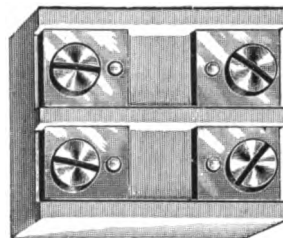
| Trade Word. | No. | Price. |
|-------------|---|--------|
| Patron. | 933, Midget S. P. horse shoe, cut-out.....per pair, | \$0.16 |
| Patronage. | 946, Medium D. P. " " each, | .14½ |
| Patronize. | 930, Large D. P. " " " | .16 |

INCANDESCENT LIGHT SUPPLIES.

FIXTURE CUT-OUTS.



Single Pole.

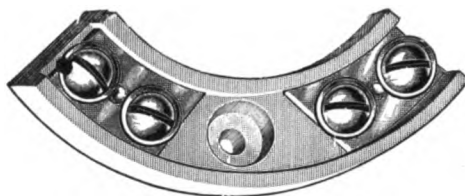
Uncovered Midget Porcelain
Cut-outs.

Double Pole.

Trade Word.

| | | each, | Price. |
|-------------|-------------------|-------|--------|
| Affright. | Single pole | | \$0.08 |
| Affrighted. | Double pole | " | .10 |

Uncovered Quadrant—Single Pole.



Trade Word.

| | | each, | Price |
|------------------|--|-------|--------|
| Affiliated | | | \$0.10 |

Straight—Single Pole.

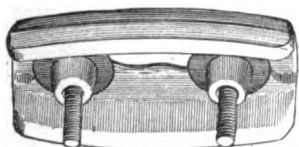


Trade Word.

| | | each, | Price |
|-------------------|--|-------|--------|
| Affiliating | | | \$0.10 |

Bryant Covered Bug Cut-out.

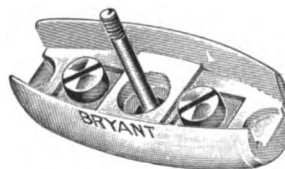
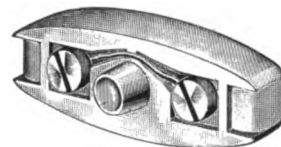
Reynolds' Self-Insulating Covered Bug Cut-out.



Porcelain.

Trade Word.

| | | Each, | Price. |
|-----------------|--|-------|--------|
| Patriotic | | | \$0.12 |

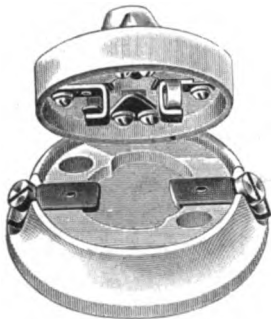


Porcelain.

Trade Word.

| | | each, | Price. |
|-----------------|--|-------|--------|
| Patriotic | | | \$0.16 |

INCANDESCENT LIGHT SUPPLIES.



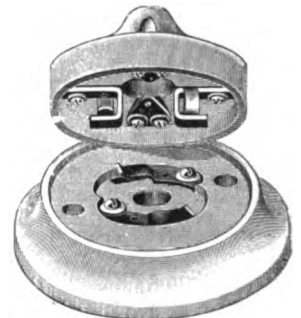
Cleat.

CENTRAL ROSETTE CUT-OUTS.

Trade Word.

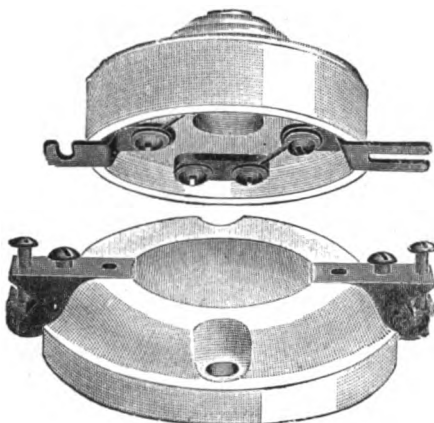
| | | |
|-------------|----------------|-----------|
| Affiancing. | Cleat..... | each, 13c |
| Affirmed. | Concealed..... | " 13c |

Price.

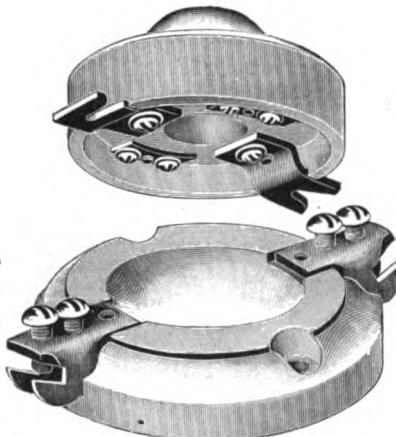


Concealed.

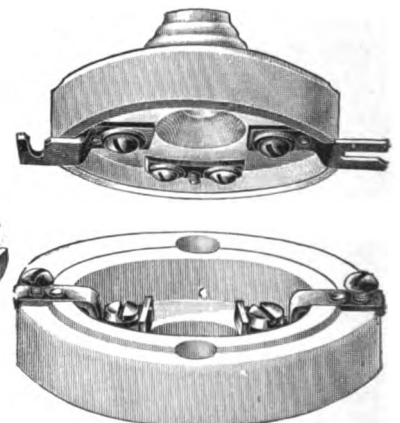
K. W. ROSETTES.



Cleat (cast lugs).

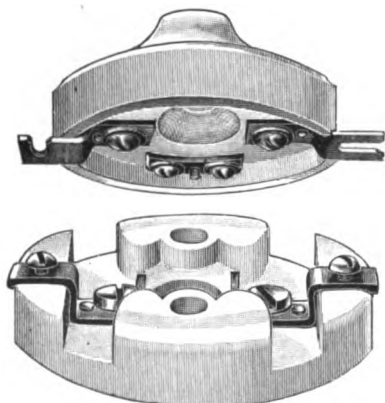


Cleat (improved lugs).

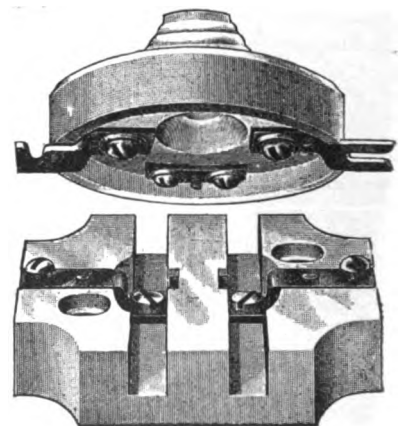


Concealed.

| Trade Word. | No. | | Price. |
|-------------|------|-----------------------------------|------------|
| Believer. | 950. | Cleat, improved stamped lugs..... | each, 14½c |
| Affidavit. | 870. | Cleat, cast lugs..... | " 15¼c |
| Affective. | 871. | Concealed..... | " 14½c |



Combination.



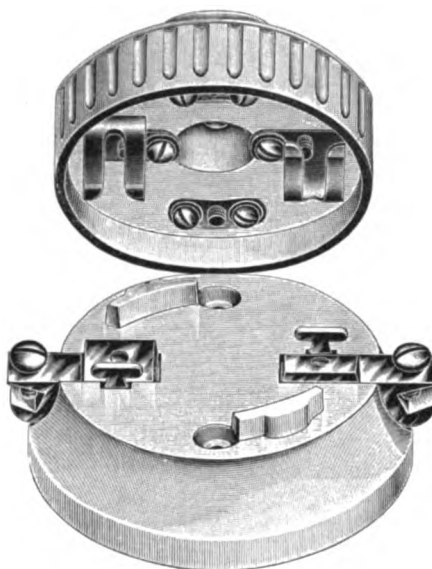
Square base moulding.

| Trade Word. | No. | | Price. |
|--------------|------|---------------------------|------------|
| Affectively. | 872. | Combination..... | each, 14½c |
| Believing. | 926. | Square base moulding..... | " 14½c |

INCANDESCENT LIGHT SUPPLIES.

P. T. ROSETTE.

Are absolutely interchangeable, assuring a firm contact



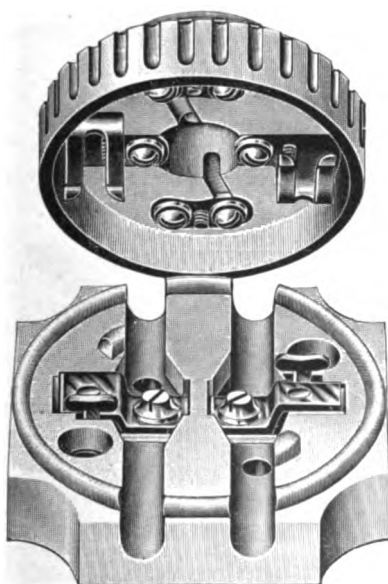
P. T. Rosette.

No. 201. For Cleat Work.

Trade Word.

Conceive.....each, \$0.13

Price.



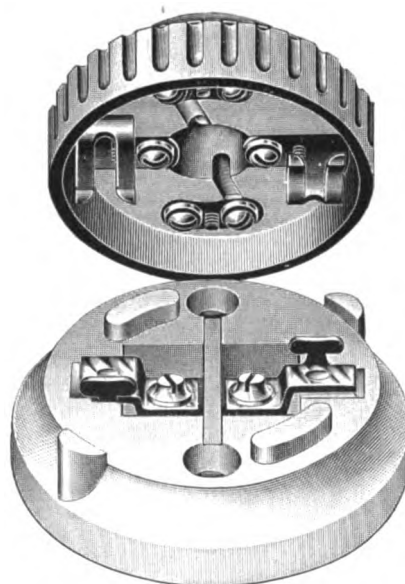
P. T. Rosette.

No. 206. For Concealed or Moulding Work.

Trade Word.

Deem.....each, \$0.13

Price.



P. T. Rosette.

No. 202. For Concealed Work.

Trade Word.

Conceiving.....each, \$0.13

Price.

INCANDESCENT LIGHT SUPPLIES.

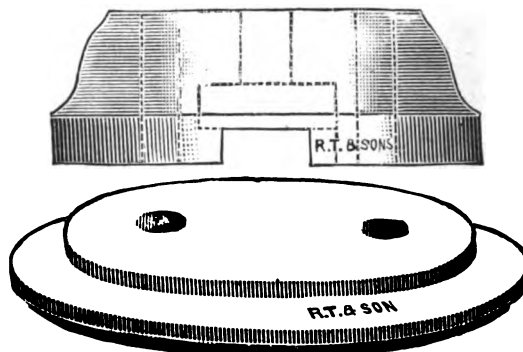
FUSELESS ROSETTES.

Imperial Ceiling Rosette.



| Trade Word. | | Price |
|-------------|---|--------|
| Devising. | No. 87½. Rosette complete, in 100 lots. | \$4.00 |
| Fancy. | Cap only | 2.00 |
| Frame. | Base only | 2.00 |

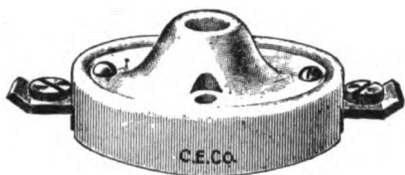
Plain Two-Piece Ceiling Button.



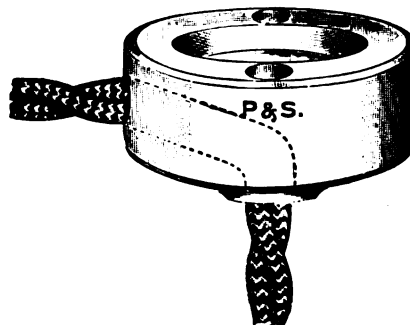
Cap 2½ inches diameter. Base 3 inches diameter.

| Trade Word. | | Price |
|-------------|--|--------|
| Pioneer. | No. 87. Rosette complete, in 100 lots. | \$0.08 |
| Piper. | Cap only | .05 |
| Piously. | Base only | .05 |

Bryant Fuseless Rosette.



| Trade Word. | | Price |
|-------------|-------------------|--------|
| Advocated. |in 100 lots, | \$0.10 |



| Trade Word. | | Price. |
|-------------|---|--------|
| Neck. | No. 70. High Insulation Rosette, in 100 lots, | \$4.00 |

P. & S. Self-Tying Ceiling Button.



| Trade Word. | | Price. |
|-------------|--------------------------|--------|
| Piquancy. | No. 170.....in 100 lots, | \$4.40 |

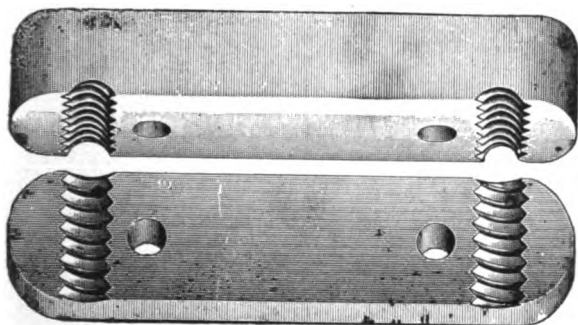
P. & S. Plain Ceiling Button.



| Trade Word. | | Price. |
|-------------|--------------------------|--------|
| Piquant. | No. 07. ....in 100 lots, | \$3.20 |

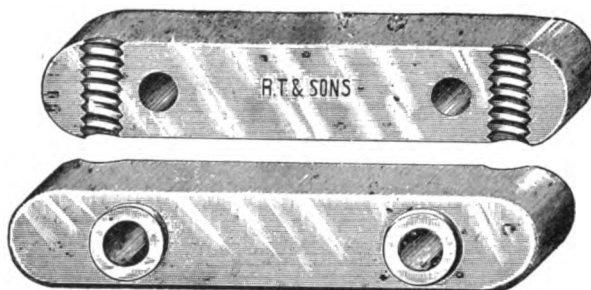
INCANDESCENT LIGHT SUPPLIES.

CLEATS PORCELAIN.



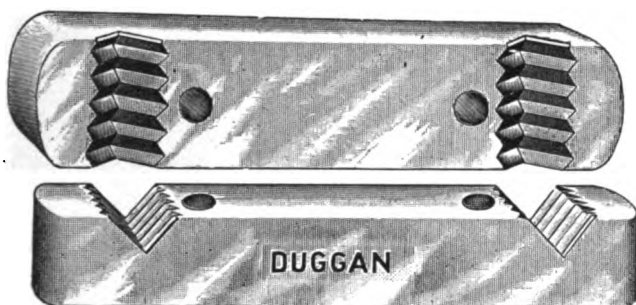
Central Cleat.

| | | |
|--------------|---|------------------------|
| Trade Word. | Packed in boxes of 1000 pair. | Price |
| Personality. | Holds wire No. 16 to No. 10, in 1000 pair lots..... | Per 1000 Pair, \$20.00 |



I. X. L. Cleat.

| | | | |
|-------------|------------|--|-------------------------------|
| Trade Word. | Personate. | Holds wire No. 10 to No. 6, in 1000 pair lots..... | Price. Per 1000 Pair. \$20.00 |
|-------------|------------|--|-------------------------------|



Duggan Cleat.

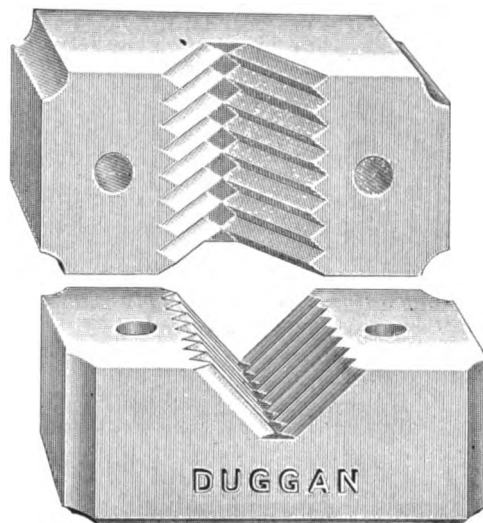
Made for 2 and 3 wire.

TWO WIRE.

| | | | |
|-------------|--|--|-------------------------------|
| Trade Word. | Personation. | No. 1 and 3 holds wire No. 16 to No. 8, in 1000 pair lots..... | Price. Per 1000 Pair. \$32.00 |
| Personator. | No. 2 holds wire No. 10 to No. 6, in 1000 pair lots..... | 47.00 | |

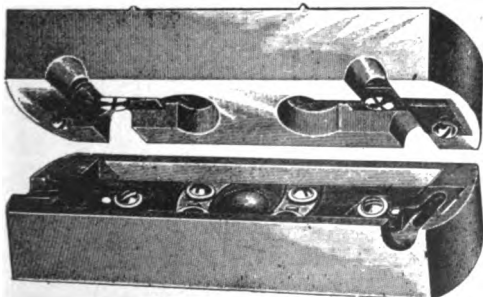
THREE WIRE.

| | | |
|------------------|--|-------|
| Personification. | Holds wire No. 16 to No. 8, in 1000 pair lots..... | 35.00 |
|------------------|--|-------|



Duggan Single Wire Cleat.

| | | | |
|----------------|---|---|------------------------------|
| Trade Word. | Personify. | No. 4 holds wire No. 16 to No. 8, in 100 pair lots..... | Price. Per 100 Pair. \$28.00 |
| Personal. | No. 5 holds wire No. 2 to No. 00, in 100 pair lots..... | 50.00 | |
| Perspective. | No. 7 holds wire No. 6 to No. 2, in 100 pair lots..... | 50.00 | |
| Perspectively. | No. 6, holds wire No. 000 and larger, in 100 pair lots | 84.00 | |



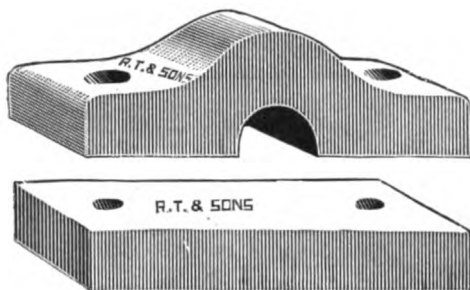
COMBINED CLEAT AND ROSETTE.

| | | | |
|-------------|-----------|--------------|---------------------|
| Trade Word. | Perspire. | No. 965..... | Price. each, \$0.13 |
|-------------|-----------|--------------|---------------------|

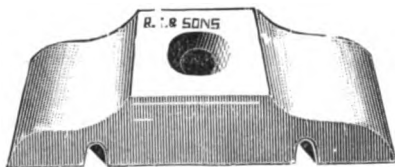
INCANDESCENT LIGHT SUPPLIES.

CLEATS PORCELAIN.

No. 49.

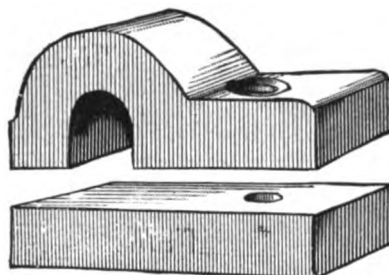


No. 52 (Base for No. 49.)

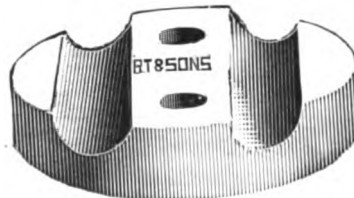
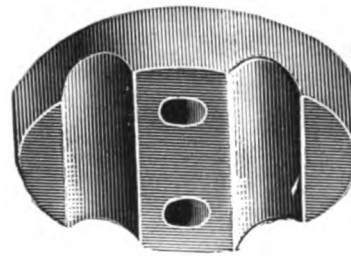


No. 63.

No. 65.



No. 66 (Base for No. 65.)



No. 68.

No. 68 can be used singly, or in pairs.

| Trade Word. | No. | | | Price |
|--------------|-----|--|----------------|---------|
| Caterer. | 63 | Cap, $\frac{1}{8}$ inch slot, 2 wire | in 1,000 lots, | \$15.00 |
| Caterman. | 64 | Flat back for No. 63..... | " " | 15.00 |
| Caterpillar. | 49 | Cap with $\frac{3}{8}$ inch slot..... | " " | 15.00 |
| Pinnacle. | 52 | Flat back for No. 49 Cap..... | " " | 15.00 |
| Pinnance. | 53 | Back with $\frac{3}{8}$ inch slot for No. 49 Cap..... | " " | 17.00 |
| Caterwaul. | 66 | Back for No. 65..... | " " | 15.00 |
| Catgut. | 65 | Half cleats, $\frac{5}{8}$ inch slot..... | " " | 15.00 |
| Cathedral. | 68 | Cleats, in pairs | " " | 40.00 |
| Catholical. | 69 | Cap, same as No. 49, but with $\frac{1}{4}$ in slot..... | " " | 50.00 |
| Catholicize. | 70 | Backs for No. 69, with $\frac{1}{4}$ inch slot..... | " " | 50.00 |

INCANDESCENT LIGHT SUPPLIES.

EDISON STANDARD SOCKETS AND RECEPTACLES.

Sockets for Lamps With Edison Base.



9324.



9387.



66225.



66237.



9323.



9364.

| Trade Word. | No. | | | | | Price. |
|-------------|--------|---------|--------------------------------|-------|-------|--------|
| Paltry. | 9323. | Key | socket, with fiber ring | ..... | each, | \$0.30 |
| Pauper. | 9324. | Keyless | " " " | ..... | " | .26 |
| Pauperism. | 9364. | Key | " " removable hard rubber ring | ..... | " | .40 |
| Paver. | 9387. | Keyless | " " " " | ..... | " | .33 |
| Pavilion. | 66225. | " | " " acorn shell | ..... | " | .40 |
| Paving. | 66237. | " | " " for electrolier | ..... | " | .40 |

RECEPTACLES FOR LAMPS WITH EDISON BASE.



9368.



9358.



9188.



9369.



50979.



66273.



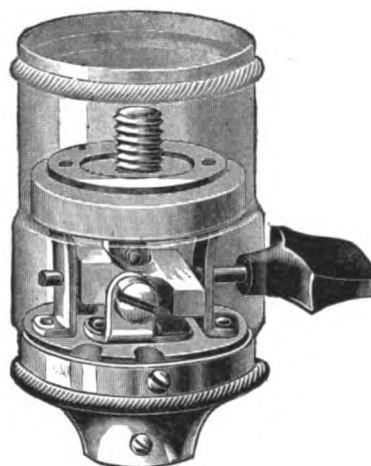
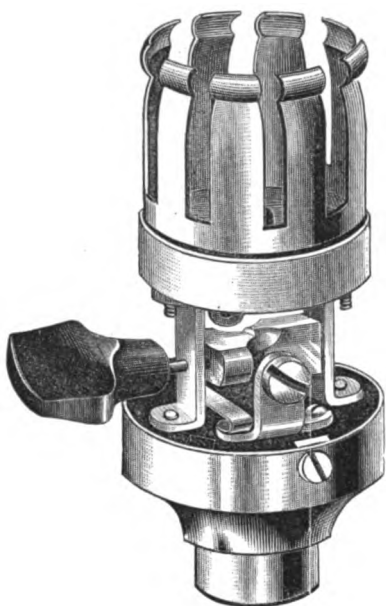
9187.

| Trade Word. | No. | | | | | | Price Each |
|-------------|--------|---|-------|---|---|---|------------|
| Paw. | 9187. | Keyless, polished receptacle with removable hard rubber ring, concealed base, | | | | | \$0.40 |
| Pawl. | 9188. | Key, | " | " | " | " | .45 |
| Pawn. | 9358. | " | " | " | " | porcelain | .45 |
| Pawner. | 9368. | " | " | " | " | fibre ring and porcelain base | .40 |
| Pay. | 9369. | Keyless, | " | " | " | " | .35 |
| Payable. | 50979. | " | " | " | " | double pole fuse, concealed base | .55 |
| Payment. | 66273. | " | " | " | " | removable hard rubber ring, porcelain base, | .30 |
| Pincushion. | 66271. | " | plain | " | " | " | .25 |

INCANDESCENT LIGHT SUPPLIES.

SOCKETS AND RECEPTACLES.

Bryant Standard Sockets, No. 1.

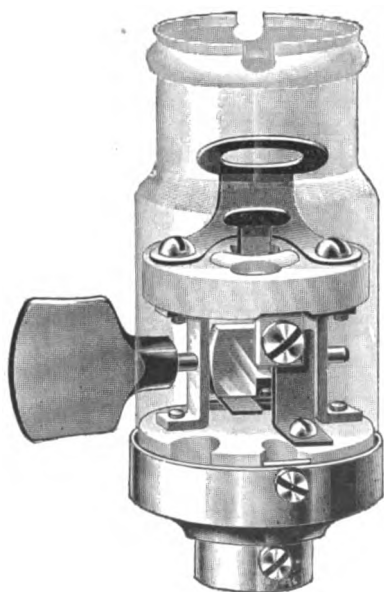


| Trade Word. | No. | Price. |
|-------------|------------------------------------|----------------------|
| Peaceful. | 849. T.-H. Key, short shell, each, | \$0 15 $\frac{1}{2}$ |
| Peacemaker. | 850. " Keyless " " " | 11 $\frac{7}{10}$ |
| Peach. | 851. " Key, long " " " | 15 $\frac{1}{2}$ |
| Peacock. | 852. " Keyless " " " | 11 $\frac{7}{10}$ |

| Trade Word. | No. | Price Each. |
|-------------|-------------------------------------|----------------------|
| Peace. | 855 Westinghouse Key, long shell... | \$0.15 $\frac{1}{2}$ |
| Peaceable. | 856. " Keyless, " " ... | .11 $\frac{7}{10}$ |

Keyless Street Socket.

With $\frac{3}{8}$ in. opening for use, with $\frac{3}{8}$ in. standard iron pipe.



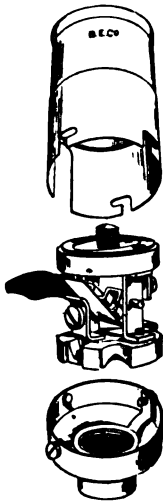
| Trade Word. | No. | Price. | Trade Word. | No. | Price. |
|-------------|----------------------|----------------------------|-------------|------------------------------|----------------------------|
| Peak. | 859. U. S. Key..... | each, \$0.38 $\frac{1}{2}$ | Peanut. | 993. T.-H. base..... | each, \$0.12 $\frac{1}{2}$ |
| Peaked. | 860. " Keyless | " 33 $\frac{1}{2}$ | Pear. | 1002. Westinghouse base..... | " 12 $\frac{1}{2}$ |

INCANDESCENT LIGHT SUPPLIES.

BRYANT SOCKETS.

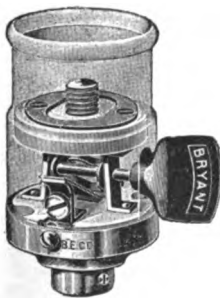
Bryant No. 2B Fixture Sockets.

By means of the third bayonet joint and stud the shell is firmly "locked" to the base of the socket, making it impossible to "wobble" or "sag" when used with a heavy shade.



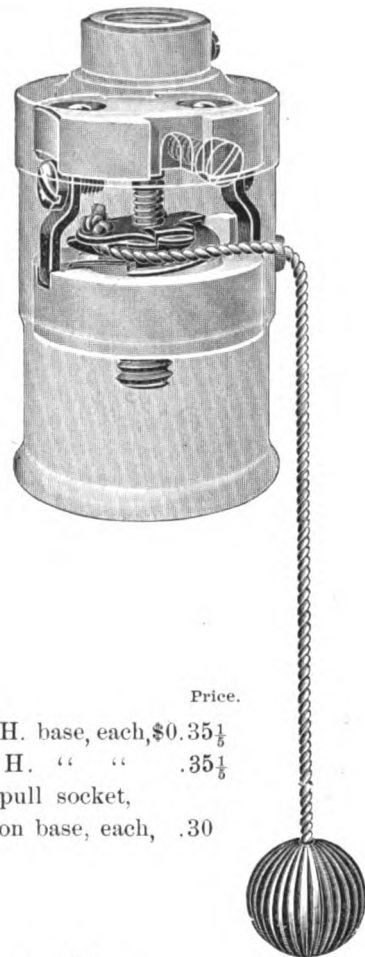
| Trade Word. | No. | | Price. |
|-------------|-------|------------------------|--------------------|
| Pearl. | 1035. | T.-H. base, key, each, | \$0.13 |
| Peasant. | 1036. | " " keyless, " | .12 $\frac{2}{10}$ |
| Peat. | 1037. | W. H. " key, " | .13 |
| Pebble. | 1038. | " " keyless, " | .12 $\frac{2}{10}$ |

Bryant No. 2A Key Sockets.

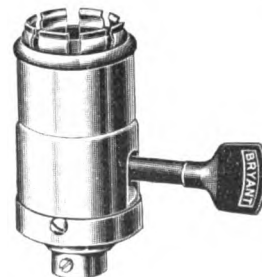


| Trade Word. | No. | Cut half size. | Price Each. |
|-------------|-------|-----------------------|----------------------|
| Pedestrian. | 1013. | T.-H. base, key..... | \$0.12 $\frac{1}{2}$ |
| Pedigree. | 1017. | " " keyless... | .11 $\frac{1}{10}$ |
| Pediment. | 1014. | W. H. " key..... | .12 $\frac{1}{2}$ |
| Peel. | 1018. | " " keyless... | .11 $\frac{1}{10}$ |
| Peerage. | 1113. | Brush-Swan base key.. | .23 $\frac{1}{2}$ |
| Peerless. | 1114. | " " " keyless | .19 $\frac{1}{2}$ |

Bryant Pull Sockets.



| Trade Word. | No. | Price. |
|-------------|-------|--|
| Pedal. | 975. | T.-H. base, each, \$0.35 $\frac{1}{2}$ |
| Pedant. | 976. | W. H. " " .35 $\frac{1}{2}$ |
| Peddler. | G. E. | pull socket, Edison base, each, .30 |

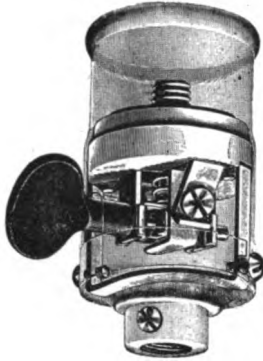


Extra Long Key.

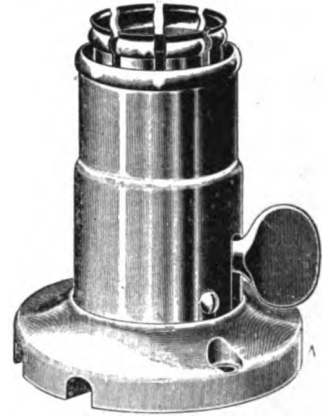
Bryant key sockets can be furnished with special long keys to order. In ordering give length of the key between the outside of the shell and the end of the key.

INCANDESCENT LIGHT SUPPLIES. CENTRAL SOCKETS AND RECEPTACLES.

Bayonet Slot—Highly Polished Shell.



| Trade Word. | | Price. |
|-------------|-------------------------------|----------------------|
| Peevish. | T.-H. base, key..... each, | \$0.12 $\frac{1}{2}$ |
| Peevishly. | " " keyless..... " | .11 $\frac{1}{2}$ |
| Pellet. | Westinghouse base, key..... " | .12 $\frac{1}{2}$ |
| Peltry. | " " keyless..... " | .11 $\frac{1}{2}$ |

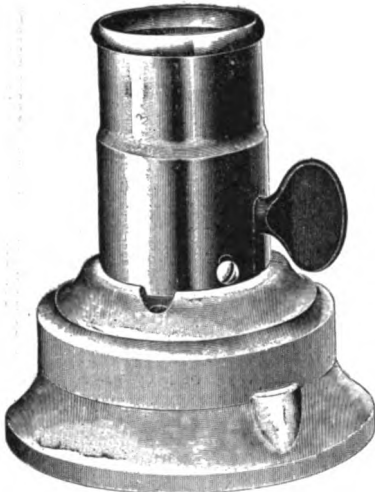


| Trade Word. | | Price. |
|-------------|--------------------------------|----------------------|
| Penal. | T.-H. base, key..... each | \$0.15 $\frac{1}{2}$ |
| Penalty. | " " keyless..... " | .14 $\frac{1}{2}$ |
| Penance. | Westinghouse, base, key..... " | .15 $\frac{1}{2}$ |
| Pencil. | " " keyless..... " | .14 $\frac{1}{2}$ |

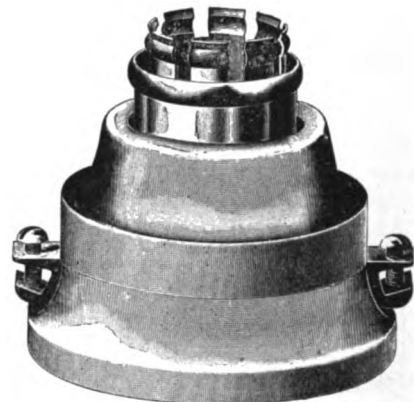
CENTRAL FUSIBLE WALL SOCKETS AND RECEPTACLES.

Fusible Wall Sockets.

Fusible A. Z. Receptacle—Keyless Only.



| Trade Word. | | Price. |
|-------------|-------------------------------|----------------------|
| Pendant. | T.-H. base, key..... each, | \$0.30 $\frac{1}{2}$ |
| Pending. | " " keyless..... " | .27 $\frac{1}{2}$ |
| Pendulum. | Westinghouse base, key..... " | .30 $\frac{1}{2}$ |
| Penetrate. | " " keyless..... " | .27 $\frac{1}{2}$ |



| Trade Word. | | Price. |
|-------------|--|----------------------|
| Penitant. | T.-H. base with shade holder attachment, each, | \$0.35 $\frac{1}{2}$ |
| Penman. | " " without shade holder..... " | .28 $\frac{1}{2}$ |
| Penant. | Westinghouse base with shade..... " | .25 $\frac{1}{2}$ |
| Penniless. | " " without shade..... " | .23 $\frac{1}{2}$ |

Made for either cleat, concealed or moulding work. In ordering specify which is wanted. We ship for cleat work unless otherwise ordered.

A. Z. RECEPTACLES.

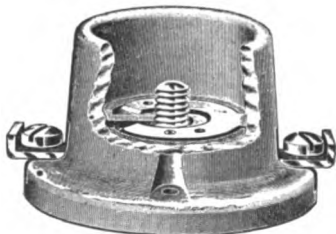
PLAIN.

| Trade Word. | | Price. |
|-------------|--------------------------|----------------------|
| Pension. | T.-H. base..... each, | \$0.09 $\frac{1}{4}$ |
| Pensive. | Westinghouse base..... " | .09 $\frac{1}{4}$ |

WITH SHADE HOLDER ATTACHMENT.

| Trade Word. | | Price. |
|-------------|--------------------------|--------|
| Penurious. | T.-H. base..... each, | \$0.13 |
| Penury. | Westinghouse base..... " | .13 |

Made for either cleat, concealed or moulding work. In ordering specify which is wanted. We ship for cleat work unless otherwise ordered.



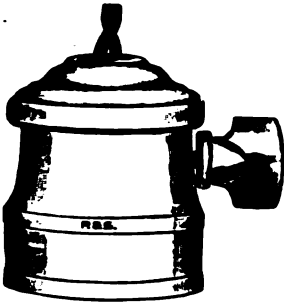
Plain.



With shade holder attachment.

INCANDESCENT LIGHT SUPPLIES.

P. AND S. ALL CHINA KEY AND KEYLESS SOCKETS AND RECEPTACLES.



For Drop Lights

Sockets for Drop Lights.

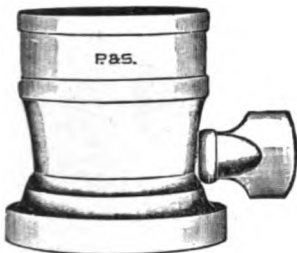
| Trade Word. | No. | | Price Each. |
|-------------|-------|------------------------|-------------|
| Oscillate. | 218. | Key T.-H. base | \$0.15 |
| Outbid. | 219. | " Westinghouse base | .15 |
| Ottoman. | 0218. | Keyless T.-H. base.... | .12 |
| Outbound. | 0219. | " Westinghouse base | .12 |



For Fixtures.

Sockets for Fixtures.

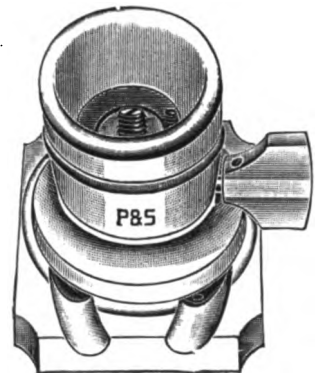
| Trade Word. | No. | | Price Each. |
|-------------|-------|------------------------|-------------|
| Outbreak. | 228. | Key T.-H. base..... | \$0.18 |
| Outbuild. | 229. | " Westinghouse base | .18 |
| Outburst. | 0228. | Keyless T.-H. base.... | .15 |
| Outcast. | 0229. | " Westinghouse base | .15 |



Wall Sockets.

Wall Sockets.

| Trade Word. | No. | | Price Each. |
|-------------|-------|------------------------|-------------|
| Outcome. | 238. | Key T.-H. base | \$0.16 |
| Outcrop. | 239. | " Westinghouse base | .16 |
| Outcry. | 0238. | Keyless T.-H. base ... | .13 |
| Outdo. | 0239. | " Westinghouse base | .13 |

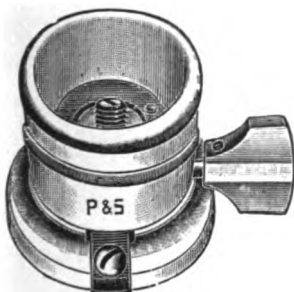


Fusible Socket Rosette.

Fusible Socket Rosettes.

Furnished for cleat, concealed or moulding work. We always ship for cleat work unless otherwise ordered.

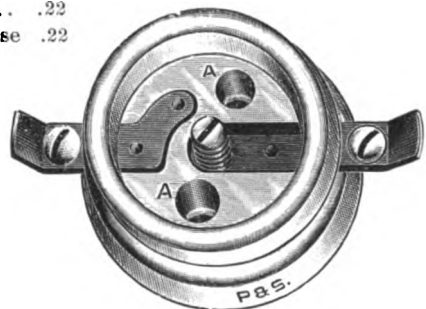
| Trade Work. | No. | | Price Each |
|-------------|--------|------------------------|------------|
| Outgrow. | 4008. | Key T.-H. base..... | \$0.25 |
| Outguard. | 4009. | " Westinghouse base | .25 |
| Outhouse. | 04008. | Keyless T.-H. base.... | .22 |
| Outlaw. | 04009. | " Westinghouse base | .22 |



No. 1088.

Pony Key and Keyless Receptacles.

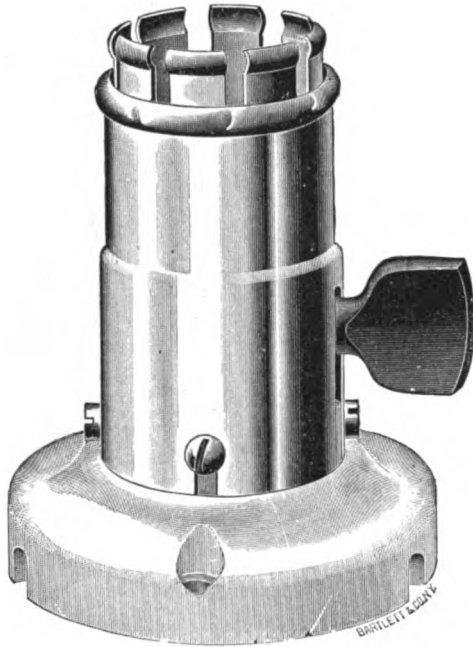
| Trade Word. | No. | | Price Each. |
|-------------|-------|-------------------------|-------------|
| Outlive. | 1088. | T.-H. key.. | \$0.21 |
| Outlook. | 1089. | Westinghouse key | .21 |
| Outlying. | 1080. | T.-H. keyless... | .08 |
| Outmarch | 1090. | Westinghouse keyless .. | .08 |



No. 1080.

INCANDESCENT LIGHT SUPPLIES.

BRYANT WALL SOCKETS.

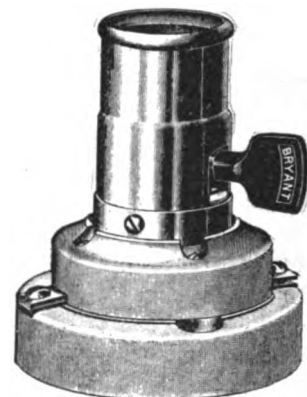


Bryant No. 1 Wall Socket.

| Trade Word. | No. | | Price |
|--------------|-------|--|----------------------|
| Perceptible. | 861. | T-H key wall socket. each, | \$0.16 $\frac{1}{2}$ |
| Perception. | 863. | " keyless " " " | .15 $\frac{1}{2}$ |
| Perch. | 865. | Westinghouse key wall socket. each, | .16 $\frac{1}{2}$ |
| Perdition. | 866. | Westinghouse keyless wall socket. each, | .15 $\frac{1}{2}$ |
| Perfect. | 1003. | U. S key wall socket " " | .43 $\frac{1}{2}$ |
| Perfective. | 1004. | " keyless " " " " | .38 $\frac{1}{2}$ |

Bryant No. 2-B Fusible Key Wall Socket for Concealed, Cleat or Moulding Work.

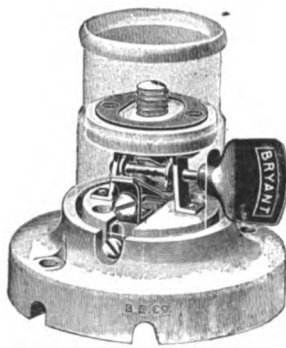
| Trade Word. | No. | | Price. |
|--------------|-------|--|----------------------|
| Perforate. | 1134. | T-H. key fusible wall socket. each, | \$0.30 $\frac{3}{4}$ |
| Perforation. | 1137. | T-H. keyless fusible wall socket. each, | .27 $\frac{3}{4}$ |
| Perform. | 1140. | Westinghouse key fusible wall socket. each, | .30 $\frac{3}{4}$ |
| Perfume. | 1143. | Westinghouse keyless fusible wall socket. each, | .27 $\frac{3}{4}$ |



Cut half size.

Bryant No. 2-A Wall Socket.

| Trade Word. | No. | | Price. |
|-------------|-------|--|----------------------|
| Perfumery. | 1015. | T-H. key wall socket. each, | \$0.15 $\frac{1}{2}$ |
| Perfuse. | 1019. | " keyless " " " | .14 $\frac{7}{10}$ |
| Perfusive. | 1016. | Westinghouse key wall socket. each, | .15 $\frac{1}{2}$ |
| Perhaps. | 1020. | Westinghouse keyless wall socket. each, | .14 $\frac{7}{10}$ |
| Peril. | 1116. | Brush-Swan key wall socket. each, | .26 $\frac{1}{2}$ |
| Perilous. | 1117. | Brush-Swan keyless wall socket. each, | .24 $\frac{1}{2}$ |



Cut half size.

In ordering fusible wall sockets always specify whether for cleat, concealed or moulding work.
We always ship for cleat work unless otherwise specified on order.

INCANDESCENT LIGHT SUPPLIES.

STANDARD EDISON PORCELAIN RECEPTACLES.

For Lamps With Edison Base.



9404.



9401.



9171.



9402.



9403.



9405.



9406.

| Trade Word. | No. | | Price |
|--------------|-------|---|--------------|
| Perk. | 9401. | Keyless receptacle, porcelain, with S. P. fuse..... | each, \$0.40 |
| Permanence. | 9402. | “ “ “ “ outside connections | “ .18 |
| Permanency. | 9403. | “ “ “ “ outside connections and adapted for shade-holder..... | “ .25 |
| Permanent. | 9404. | “ “ porcelain, with rosette base | “ .40 |
| Permanently. | 9405. | “ “ with rosette base and adapted for shade holder... “ | .50 |
| Permeable. | 9406. | “ “ holding lamp and angle of 45 degrees..... | “ .80 |
| Permeate. | 9171. | “ “ porcelain, with outside connections and no screw holes in base | “ .18 |

STANDARD EDISON WATER-PROOF SOCKETS AND RECEPTACLES.

For Lamps With Edison Base.



9366.



9407.



9408.



9411.



60666.

| Trade Word. | No. | | Price. |
|---------------|--------|---|--------------|
| Permeation. | 9407. | Porcelain, water-proof receptacle, with leads parallel to base..... | each, \$0.40 |
| Permiscible. | 9408. | “ water-proof receptacle, with leads perpendicular to base.. “ | .40 |
| Permission. | 9411. | “ water-proof receptacle, with leads perpendicular to base and lugs for base screws..... | “ .35 |
| Permissive. | 9366. | “ water-proof socket..... | “ .35 |
| Permissively. | 60666. | Hard Rubber, water-proof socket | “ .60 |

INCANDESCENT LIGHT SUPPLIES.

BRYANT PORCELAIN WEATHER-PROOF SOCKETS.



Weather-proof Bracket Socket.

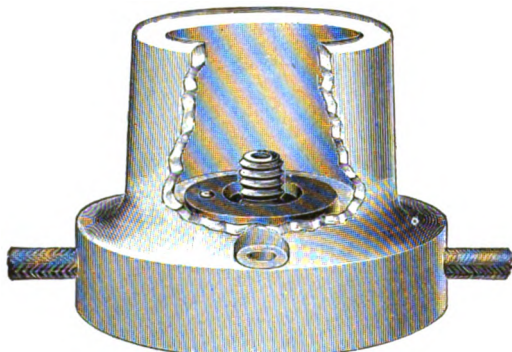
Fitted with $\frac{1}{8}$ in. brass socket bushing for fixture or bracket use.



| Trade Word. | No. | | Price. |
|--------------|-------|---|--------|
| Obviate. | 1104. | T. H., without lip for shade holder.....each, | \$0.16 |
| Obviation. | 1105. | W. H., without lip for shade holder.....each, | .16 |
| Permit. | 994. | T.-H., for use with shade holder.....each, | .16 |
| Permittance. | 007. | Westinghouse, for use with shade holder.....each, | .16 |

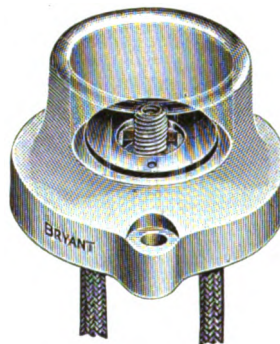
| Trade Word. | No. | | Price. |
|--------------|-------|----------------------|----------------------|
| Permitation. | 1069. | T. H. base.....each, | \$0.30 $\frac{1}{2}$ |
| Pernicious. | 1070. | Westinghouse..... " | .30 $\frac{1}{2}$ |

BRYANT PORCELAIN WEATHER-PROOF RECEPTACLE.



Side wires.

| Trade Word. | No. | | Price. |
|----------------|------|----------------------|----------------------|
| Peroration. | 966. | T.-H. base.....each, | \$0.17 $\frac{1}{2}$ |
| Perpendicular. | 967. | Westinghouse..... " | .17 $\frac{1}{2}$ |



Bottom wires.

| Trade Word. | No. | | Price. |
|---------------|------|-----------------------|----------------------|
| Perpetrate. | 962. | T.-H. base .....each, | \$0.17 $\frac{1}{2}$ |
| Perpetration. | 963. | Westinghouse..... " | .17 $\frac{1}{2}$ |

MOULDED MICA WEATHER-PROOF LAMP SOCKETS.

For use in Breweries, Laundries, Tunnels and other damp places.

| Trade Word. | | Price. |
|--------------|-----------------------------|--------|
| Perpetrator. | Westinghouse base.....each, | \$0.45 |
| Perpetual. | Thomson-Houston base..... " | .45 |

Socket for Bracket Fixture.

Threaded for standard $\frac{1}{8}$ inch pipe.

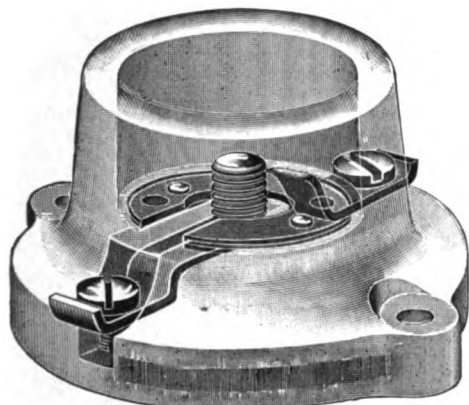
| | | |
|--------------|-----------------------------|-----|
| Perpetually. | Westinghouse base..... " | .72 |
| Perpetuate. | Thomson-Houston base..... " | .72 |



For pendant socket.

INCANDESCENT LIGHT SUPPLIES.

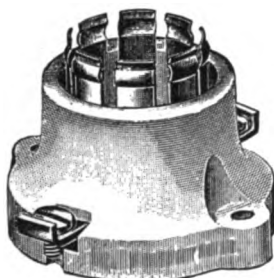
PORCELAIN TEST RECEPTACLES.



For cleat work.

| Trade Word. | No. | | Price. |
|---------------|------|----------------------|----------------------|
| Perpetuation. | 921. | T.-H. lamp.....each, | \$0.09 $\frac{1}{4}$ |
| Perpetuity. | 995. | Westinghouse lamp. " | .09 $\frac{1}{4}$ |

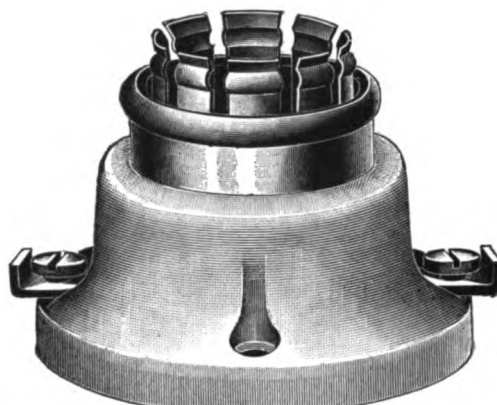
Pony Wall Receptacle.



No. 1124.

Diameter of base, 2 inches.

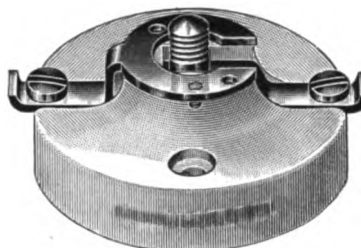
| Trade Word. | No. | | Price. |
|-------------|-------|-----------------------|----------------------|
| Perplexity. | 1123. | T.-H. lamp.....each, | \$0.09 $\frac{1}{4}$ |
| Perquisite. | 1124. | Westinghouse lamp.. " | .09 $\frac{1}{4}$ |



For shade holder.

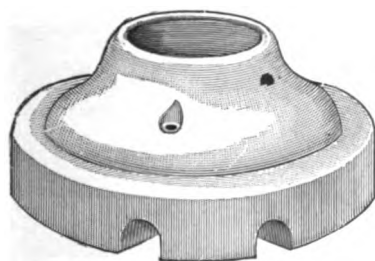
| Trade Word. | No. | | Price. |
|--------------|-------|----------------------|----------------------|
| Perplex. | 1011. | T.-H. lamp.....each, | \$0.12 $\frac{1}{2}$ |
| Perplexedly. | 942. | Westinghouse lamp. " | .12 $\frac{1}{2}$ |

Plain Testing Base.

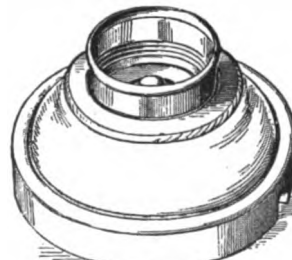


| Trade Word. | No. | | Price. |
|--------------|-------|----------------------|----------------------|
| Persecute. | 1180. | T.-H. lamp.....each, | \$0.09 $\frac{1}{4}$ |
| Persecution. | 1181. | Westinghouse lamp. " | .09 $\frac{1}{4}$ |

PORCELAIN LAMP RECEPTACLES, FUSIBLE.



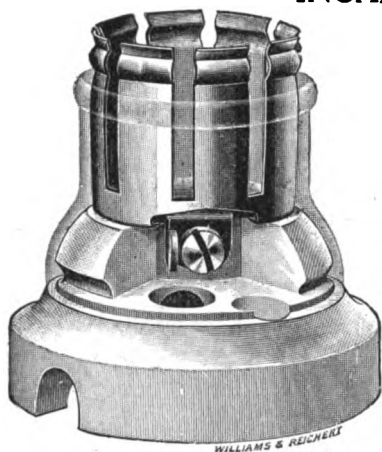
| Trade Word. | No. | | Price. |
|---------------|------|----------------------|----------------------|
| Persecutor. | 868. | T.-H. lamp.....each, | \$0.22 $\frac{1}{2}$ |
| Perseverance. | 996. | Westinghouse lamp. " | .22 $\frac{1}{2}$ |



Shade holder attachment.

| Trade Word. | No. | | Price. |
|-------------|-------|--|----------------------|
| Persevere. | 1071. | T.-H. lamp D.P. for fuse each, | \$0.24 $\frac{1}{2}$ |
| Persiflage. | 1072. | Westinghouse lamp D. P. for fuse.....each, | .24 $\frac{1}{2}$ |

INCANDESCENT LIGHT SUPPLIES.

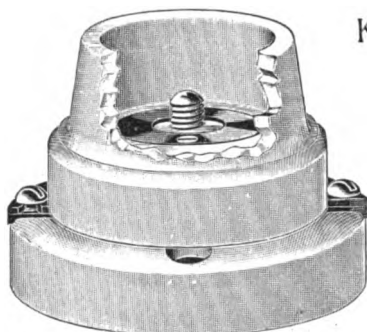


SPECIAL TEST RECEPTACLE.

For concealed and moulding work.

Porcelain base, contact parts covered with brass shell.

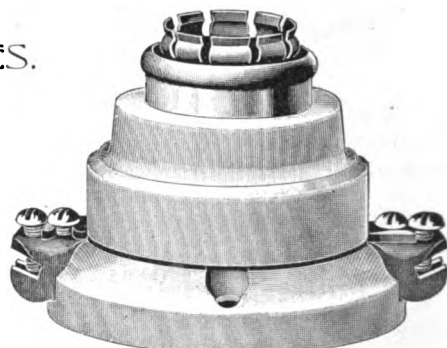
| Trade Word. | No. | | Price. |
|-------------|------|---|------------|
| Outrage. | 899. | T.-H. special test receptacle..... | each, 12½c |
| Persist. | 922. | Westinghouse special test receptacle..... | " 12½c |



K. W. RECEPTACLES.

For cleat, concealed or
moulding work.

| Trade Word. | No. | Plain. | Price each. |
|--------------|------|---------------------|----------------|
| Persistence. | 927. | T.-H. base..... | 23½c |
| Persistency. | 928. | Westinghouse base.. | 23½c |



With shade holder attachment.

| Trade Word. | No. | | Price each. |
|-------------|-------|---------------------|----------------|
| Persistent. | 949. | T.-H. base..... | 25½c |
| Person. | 1012. | Westinghouse base.. | 25½c |

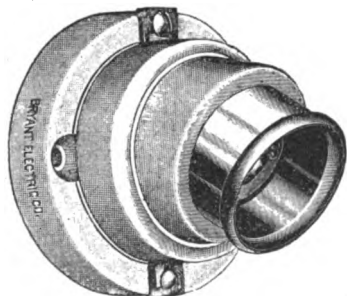
K. W. ANGLE RECEPTACLE, 45°.

For cleat, concealed or moulding work.

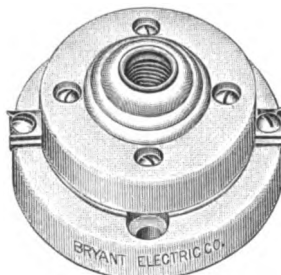
TYPE B. K. W. BRACKET CUT-OUTS.

For cleat, concealed or moulding work.

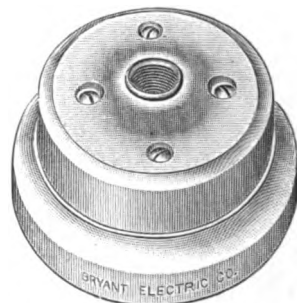
Adapted for use with any standard bracket made from ¾ inch brass tubing.



| Trade Word. | No. | | Price each. |
|-------------|------|--------------------|----------------|
| Personable. | 959. | T.-H. base..... | 35½c |
| Personage. | 960. | West'h's'e base... | 35½c |



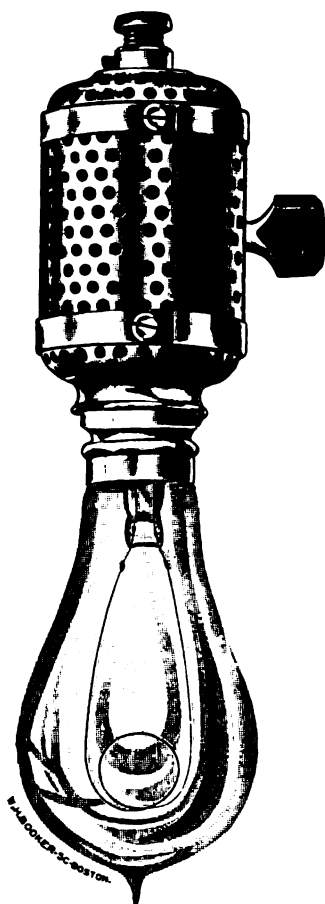
| Trade Word. | No. | | Price. |
|-------------|------|------------|--------|
| Personal. | 1073 |each, | 20½c |



| Trade Word. | No. | | Price. |
|--------------|------|----------|--------|
| Personality. | 1131 | ...each, | 20½c |

In ordering K. W. receptacles, bracket cut-outs or angle receptacles, always specify whether for cleat, concealed or moulding work. We always ship for cleat work unless otherwise specified on order.

INCANDESCENT LIGHT SUPPLIES.



Patent applied for

BRUNT'S LATEST IMPROVED REGULATING SOCKET.

For 16 C. P. Incandescent Lamp.

Is adapted to direct or alternating current, any voltage from 50 to 118. By simply turning the key you raise or lower your light 2 to 16 candle power. Very convenient for the sick room, sleeping apartments, vestibules, etc. In ordering always state voltage and base. T.-H. or Edison **only**.

| Trade Word. | Price. |
|---|--------|
| Outpour. Thomson-Houston base each, | \$3.00 |
| Oxygen. Edison base " " | 3.00 |

OTIS ADJUSTABLE INCANDESCENT LAMP HOLDER.

A Simple and Practical Device for Holding Incandescent Lamps at any Desired Angle.

HOW TO ATTACH THE HOLDER IN POSITION.

Secure the holder to the socket in the same manner as a shade holder, then pull the neck apart, remove the fibre bushing and spread it, to go over the wire, then snap the neck over the fibre in its original position.

| Trade Word. | Price. |
|---|--------|
| Oyer. Lamp holder, complete each, | \$0.30 |



INCANDESCENT LIGHT SUPPLIES.

ALL PORCELAIN FUSIBLE ATTACHMENT PLUGS.

Have removable cover for inserting fuse.

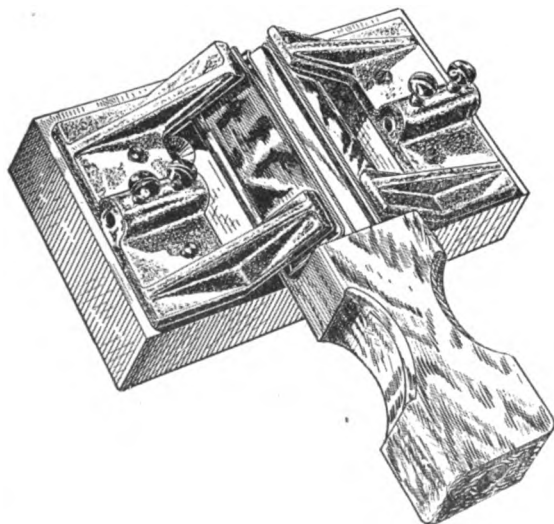


| Trade Word. | | Price. |
|-------------|-------------------------|--------|
| Originate. | Edison base.....each, | \$0.18 |
| Ornament. | Westinghouse base | “ .18 |
| Ornate. | T.-H. “ | “ .18 |

CENTRAL ATTACHMENT PLUGS.

Wood handles, metal base. Not fusible.

| Trade Word. | | Price. |
|-------------|-------------------------|--------|
| Appealed. | Edison base.....each, | \$0.10 |
| Periodic. | Westinghouse base | “ .10 |
| Appeals. | T.-H. “ | “ .10 |



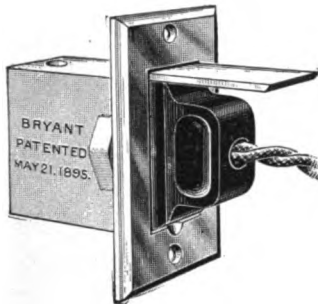
STAGE RECEPTACLE AND ATTACHMENT PLUG.

Adapted to be placed beneath the floor; heavy metal jaws with spring contact, mounted on slate base; plug is of hard wood, with heavy contacts placed triangularly so that it is impossible to reverse polarity; an important feature when direct current arc lamps are used.

| Trade Word. | | Price. |
|-------------|---------------------------------------|--------|
| Orology. | Complete with base and plug.....each, | \$3.00 |

INCANDESCENT LIGHT SUPPLIES.

CHAPMAN RECEPTACLE AND PLUG.

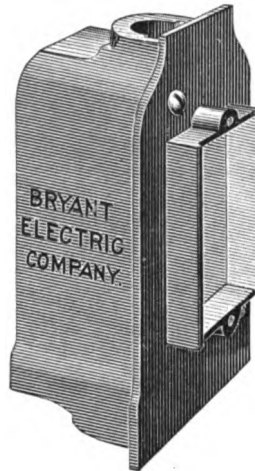


Especially adapted for use with electric heating and cooking apparatus, desk lights and fan motors. It sets in flush with wall, and when plug is removed covers with a flush lid; all plugs are interchangeable.

| Trade Word. | No. | Price. |
|---------------|---|--------|
| Extirp. | 1108. Chapman receptacle and plug with lid, each, | \$3.30 |
| Extirpate. | 1109. Chapman receptacle and plug, no lid... " | 2.80 |
| Extirpated. | 1110. Chapman plug, only. " | 1.75 |
| Periodically. | 1111. Chapman receptacle only, with lid..... " | 1.75 |
| Periodicity. | 1112. Chapman receptacle only, no lid..... " | 1.20 |

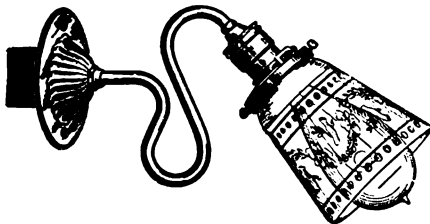
IRON WALL BOXES.

For Chapman receptacles.



Enamel lined, capable of withstanding a current of 2,000 volts. Made in four styles, as follows:

| Trade Word. | Price. |
|-------------|--|
| Perish. | One outlet at one end only....each, \$1.10 |
| Perishable. | " " " each " " " 1.10 |
| Peristyle. | Two outlets " one " " " 1.10 |
| Periwig. | " " " one " " and one outlet at other end.... " 1.10 |



No. 1128.

CHAPMAN BRACKET RECEPTACLE.

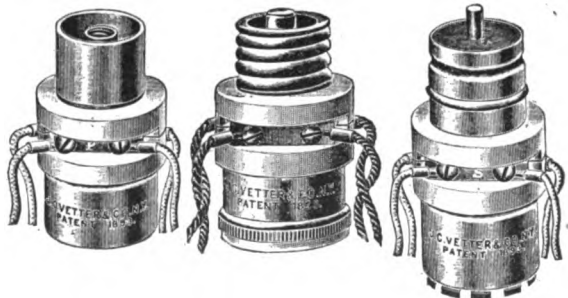
| Trade Word. | No. | Price. |
|-------------|--|--------------|
| Orotund. | 1128. Complete with plug | each, \$5.50 |
| Orphan. | 1183. Receptacle only | " 3.00 |
| Orphanage. | 1129. Plug | " 3.00 |
| Orris. | 1116. Chapman attaching plug..... | " 1.75 |
| Ortive. | 1127. Mat only for Chapman receptacle, furnished singly or in gangs..... | " .40 |

VETTER CURRENT TAP.

For series or multiple connections.

A combined socket and plug. A simple and safe device for tapping and carrying the current from any electric light fixture to motor, drop-lights or other electrical devices without the loss of lamp in fixture.

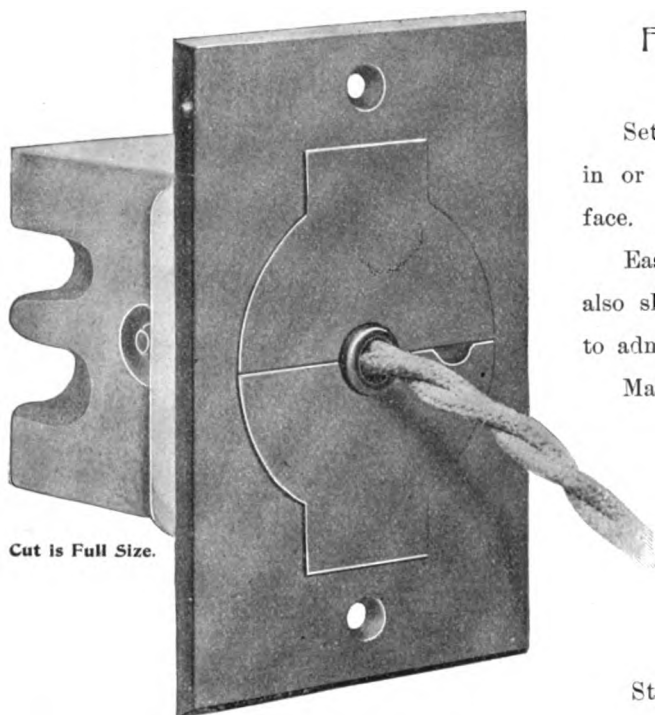
In ordering specify series or multiple as desired.



| Trade Word. | Price. |
|---|--------------|
| Periwinkle. For Edison socket..... | each, \$1.50 |
| Perjure. " T-H. " | " 1.50 |
| Perjury. " Westinghouse socket. | " 1.50 |

INCANDESCENT LIGHT SUPPLIES.

FLUSH PLUG-RECEPTACLE.



Showing Receptacle Closed with Plug in Place.

Sets flush with the wall or floor when plug is in or out; no unsightly plug projecting beyond the face.

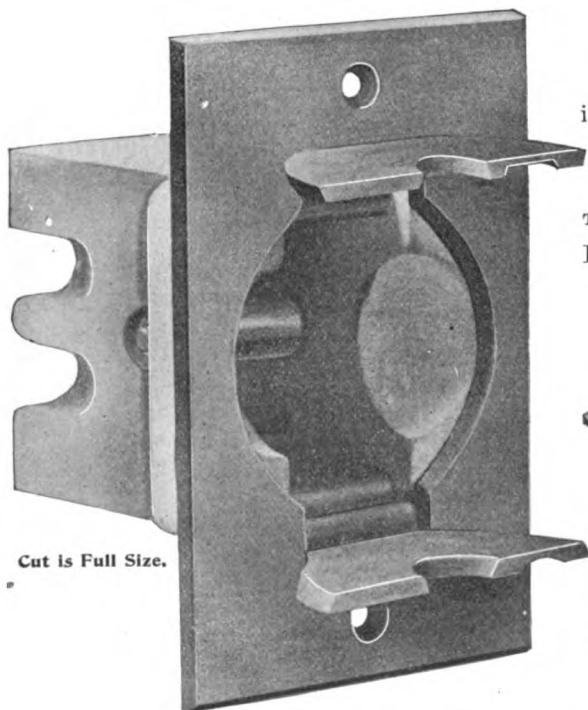
Easy to wire, large binding posts being provided, also slots and holes in porcelain base large enough to admit of wire being looped in.

Made to fit standard iron boxes.

Porcelain barrier between parts of opposite polarity in base, thereby eliminating all possibility of short circuits occurring.

Plug will take the largest cord.

Standard finish of face plate is rich red bronze



Showing Receptacle Open Ready to Receive Plug.

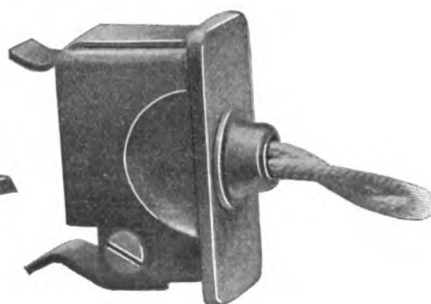
Furnished to fit standard flush switch boxes instead of wall plug boxes when desired.

Trade Word.

Predial.

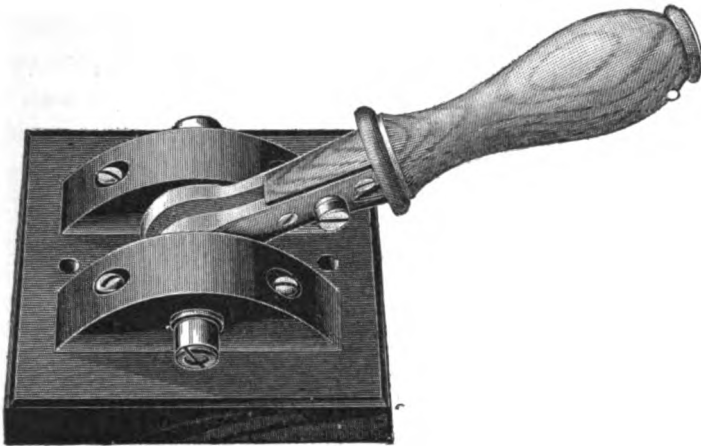
Price

Central Flush Plug Receptacle, complete with plug..... each, \$3.00

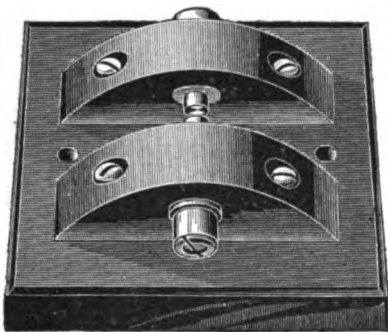


INCANDESCENT LIGHT SUPPLIES.

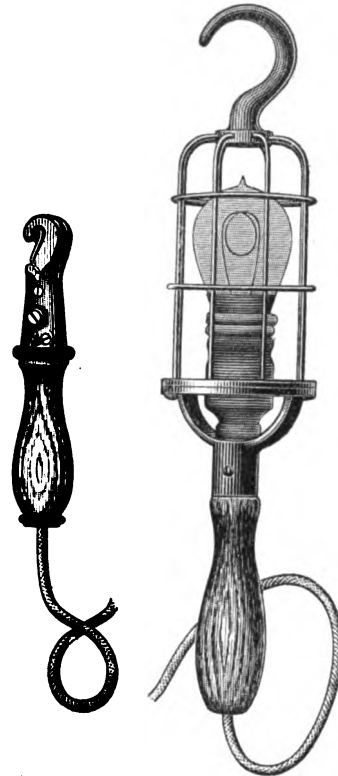
FIRE AND WATER-PROOF ATTACHING HOOK AND RECEPTACLE.



No. 9710.



No. 9720.



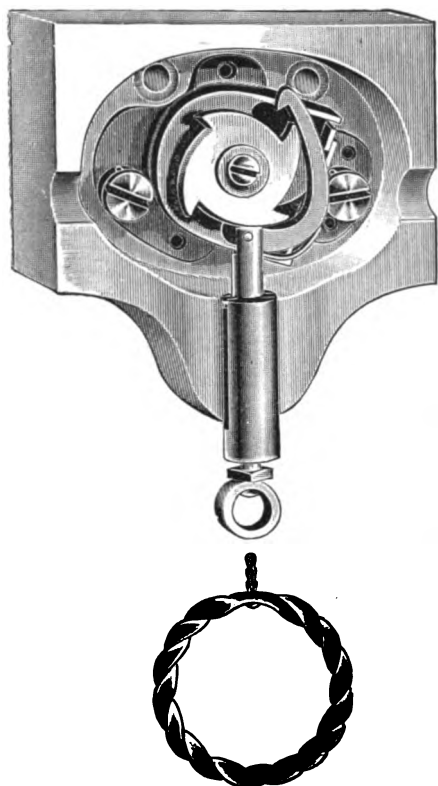
No. 9730.

The above Attaching Hook and Receptacle is one of the best and most effective devices in the market for connecting portable electric lights, or any other portable electric apparatus to stationary circuits. It is especially designed for places where moisture, steam or humidity destroy most of these devices within a very short time, and is therefore of great value to breweries, distilleries, dye houses, slaughter houses, mines, tunnels, etc., etc. Carelessness or darkness of the room cannot cause a short circuit, or a reversing of the polarity on the portable apparatus in making the connection. The contacts are securely established, electrically and mechanically; they will carry a current of 15 amperes without heating, and can also stand a considerable overload for a long time without being damaged.

| Trade Word. | No. | | Price. | Trade Word. | No. | | Price. |
|-------------|-------|--------------------------|--------|-------------|-------|-----------------------------|--------|
| Quickstep. | 9710. | Attaching hook . . each, | \$4.80 | Quietest. | 9740. | Rubber socket cover, each, | \$0.18 |
| Quiescent. | 9720. | Receptacle | 6.60 | Quietly. | 9760. | Keyless socket | .48 |
| Quiet. | 9730. | Wire guard | 6.00 | Quietness. | 9770. | Flexible cable, per ft. . . | .28 |

Special estimates furnished for quantities.

INCANDESCENT LIGHT SUPPLIES.



BRYANT CHANDELIER SWITCH.

This chandelier switch is intended to be placed in the canopy of the chandelier, and is fitted with an attachment on the back which clamps around the pipe and is held in place by a set screw. The chain can be dropped down between the pipe and the shell of the chandelier, or through a small hole in the canopy outside of the chandelier. Chain is fitted with brass ring hanging below the chandelier, the first pull of which throws on all the lights, the next pull cutting them out.

Chain and ring can be furnished any style finish when desired to match any finish or fixture.

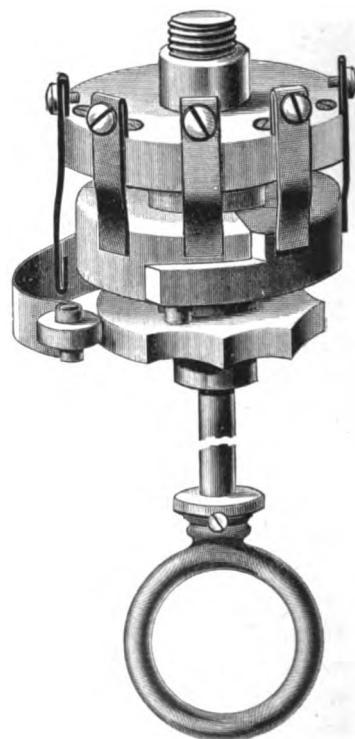
| Trade Word. | Ampere Capacity. | Price. |
|---------------|---------------------------------------|---------------|
| Pillaged. | 5 Complete with 6 ft. chain and ring. | each, \$1.80 |
| Philanthropy. | Extra brass chain | per foot, .10 |
| Philharmonic. | " " rings | each, .10 |

CASSIDY ELECTRIC FIXTURE SWITCH.

This switch controls each electric light separately, and also allows all lamps to be lighted or extinguished by one movement. It is strong and durable, of simple construction, and cannot get out of order.

Operated by turning key to right or left.

| Trade Word. | | Price. |
|---------------|---------------------|--------|
| Philippic. | Two light.....each, | \$5.00 |
| Philologer. | Three " | 5.00 |
| Philological. | Four " | 5.00 |
| Philologist. | Five " | 6.00 |
| Philology. | Six " | 6.00 |
| Philomath. | Eight " | 7.00 |



INCANDESCENT LIGHT SUPPLIES.

SOCKET BUSHINGS.



No. 10.



No. 30.



No. 100.

| Trade Word. | No. | | | | | Price. |
|--------------|------|--------------|--------------|-------|---------|---------|
| Attendant. | 10. | Hard rubber, | in 100 lots, | ..... | per 100 | \$ 7.20 |
| Pertinacity. | 10. | Red fibre, | " 100 " | ..... | " 100 | 8.00 |
| Absurd. | 10. | Composition, | " 1000 " | ..... | " 1000 | 16.00 |
| Attested. | 30. | Hard rubber, | " 100 " | ..... | " 100 | 6.00 |
| Attending. | 30. | Composition, | " 1000 " | ..... | " 1000 | 9.50 |
| Attired. | 100. | Hard rubber, | " 100 " | ..... | " 100 | 5.40 |



60.



70.



35.

| Trade Word. | No. | | | Price. |
|-------------|-----|--------------|--------------|--------|
| Attester. | 60. | Hard rubber, | in 100 lots, | \$3.00 |
| Perturb. | 60. | Composition, | " 1000 " | 6.40 |
| Attic. | 70. | Hard rubber, | " 100 " | 6.00 |
| Abstract. | 35. | Soft rubber, | " 100 " | 1.40 |

CORD ADJUSTERS.

Q. and S.



No. 1.

| Trade Word. | No. | | Price Per 100. |
|--------------|-----|-----------------|----------------|
| Attiring. | 1. | Hard rubber, | |
| | | in 100 lots.... | \$9.00 |
| Pertly. | 1. | Wood enameled, | |
| | | in 100 lots.... | 7.50 |
| Pertinently. | | Q. and S., in | |
| | | 100 lots..... | 1.00 |



ACTUAL SIZE.

POLISHED BRASS AND HARD RUBBER FIXTURE BUSHING.



No. 25.

| Trade Word. | Price Per 100. |
|-------------|-------------------------|
| Pertinent. | In 100 lots.....\$12.00 |

WOOD ADJUSTING BALLS.



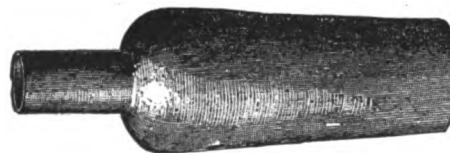
| Trade Word. | Price Per 100. |
|-------------|---|
| Absorb. | Wood, black enameled, in 100 lots \$12.00 |

SOCKET RINGS.



| Trade Word. | Price Per 100 |
|---------------|-----------------------------------|
| Perturbation. | Hard rubber, 100 lots .....\$8.00 |
| Pertusion. | Composition, 100 "5.00 |

SOFT RUBBER SOCKET COVER.

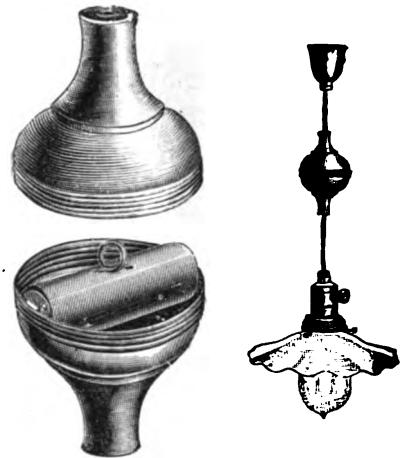


| Trade Word. | Price. |
|-------------|------------------|
| Appear. | Each .....\$0.20 |

INCANDESCENT LIGHT SUPPLIES.

THE DOW CORD ADJUSTER.

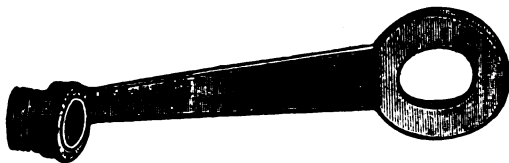
The Dow Adjuster is a thoroughly reliable device for instantly raising or lowering an electric light, and is especially adapted for stores, offices, libraries, hospitals, etc. Can be operated with one hand. Is not liable to get out of order, and is much safer than long cords, as the cord when not in use can be rolled up out of the way. In most places the Adjuster can be placed on the cord now in use. It is neat and ornamental, being only three inches in diameter, and will hold twelve feet of cord.



| Trade Word. | | Price. |
|-------------|---------------------|------------------|
| Pervade | Polished brass..... | per doz. \$18.00 |
| Pervasion | Nickel..... | " 20.00 |

GAS LIGHT COMBINATION ATTACHMENTS.

For attaching incandescent lamps to gas fixtures.



This attachment can readily be bent to any angle.

| Trade Word. | | Price. |
|--------------|----------|---------|
| Absolve..... | per 100, | \$ 5.00 |



| Trade Word. | | Price. |
|---------------|----------|--------|
| Absonant..... | per 100, | \$8.00 |

UNIVERSAL LAMP ATTACHMENT.

These attachments grip upon the base of the burner at any desired angle, and may be instantly adjusted without breaking the old gas joints. The grip is so constructed as never to become loose.



| Trade Word. | | Price. |
|-------------|-------------------------|------------------|
| Absolver. | Plain..... | per 100, \$18.00 |
| Absolving. | Insulated complete..... | " 25.00 |

SOCKET HOOKS.



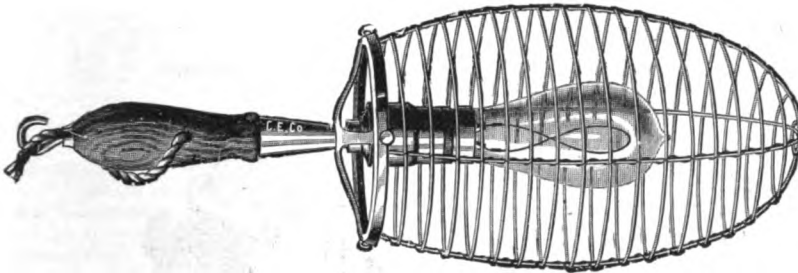
| Trade Word. | | Price. |
|-------------|--|--------|
| Attract. | Threaded to fit $\frac{1}{8}$ inch socket....each, | \$0.13 |



Adjust screw eyes wherever lamp is needed. Can be projected horizontally or hung vertically.

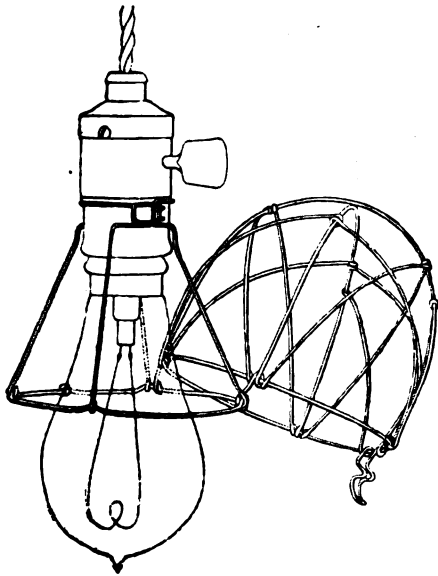
| Trade Word. | | Price. |
|--------------|---|--------|
| Attractable. | To fit $\frac{1}{8}$ inch socket, complete with screw eye.....each, | \$0.15 |

INCANDESCENT LIGHT SUPPLIES.

WIRE
LAMP GUARD.

Showing Wire Guard and Holder, with Handle, Hook and Socket, and Lamp attached for use with flexible Cord.

| Trade Word. | Description. | Price. |
|---------------|--|--------|
| Adulation. | Guard for 3 1-4 inch holder. ....each, | \$0.15 |
| Adult. | Holder..... | “ .20 |
| Adulterate. | Handle, fitted with Hook..... | “ .27 |
| Adulteration. | Guard, Holder and Handle, complete.... | “ .55 |

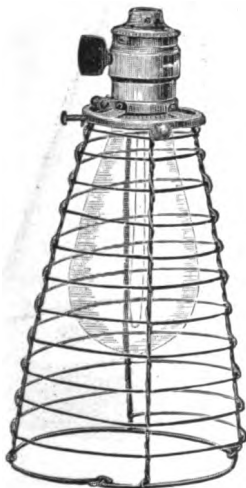


WIRE STAND GUARD.

IMPROVED PERFECTION WIRE
LAMP GUARD.

Opens at the center and permits the lamp to be removed and replaced without taking guard from the socket.

| Trade Word | Price. |
|---------------------------|------------------|
| Peruse. In doz. lots..... | Per doz., \$1.25 |

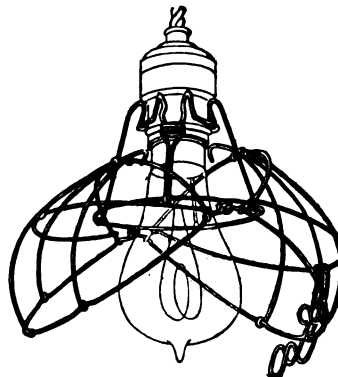


No. E. 899. Tinned.

Height 7 in., diameter 4 1/4 in.

| | |
|----------------|------------------|
| Trade Word. | Price. |
| Attrition..... | Per doz., \$2.50 |

DUPLEX WIRE LAMP GUARD.



Heavy, made of No. 12 wire.

| | |
|--------------|--------------------|
| Trade Word. | Price. |
| Pinnate..... | Per gross, \$40.00 |

INCANDESCENT LIGHT SUPPLIES.

THE MACALLEN SOLID MICA CHANDELIER JOINTS.

These joints have been approved and recommended by the Boards of Fire Underwriters throughout the country and are recognized by the trade as the standard insulating joints.

All our joints are tested electrically to 2500 volts, and all our combination joints are tested under high atmospheric pressure, and we guarantee them not to leak gas.

If for any reason any joint that is defective should pass our inspectors, we will thank our customers for notice of same at once, and we will replace at our expense any so defective.



IN COMPOSITION BRASS.

COMBINATION.

| Trade Word. | Cat No. | Size. | Price. |
|--------------|---------|---------------------------------|---------------------|
| Pesky. | 1001 | $\frac{3}{8}$ x $\frac{1}{8}$ | each, \$0.50 |
| Pest. | 1002 | $\frac{3}{8}$ x $\frac{1}{4}$ | " .50 |
| Pester. | 1003 | $\frac{3}{8}$ x $\frac{3}{8}$ | " .50 |
| Pestilence. | 1004 | $\frac{1}{2}$ x $\frac{1}{8}$ | " .66 $\frac{2}{3}$ |
| Pestilent. | 1005 | $\frac{1}{2}$ x $\frac{1}{4}$ | " .66 $\frac{2}{3}$ |
| Pestile. | 1006 | $\frac{1}{2}$ x $\frac{3}{8}$ | " .66 $\frac{2}{3}$ |
| Pet. | 1007 | $\frac{1}{2}$ x $\frac{1}{2}$ | " .66 $\frac{2}{3}$ |
| Petal. | 1010 | $\frac{3}{4}$ x $\frac{3}{8}$ | " 1.00 |
| Petral. | 1011 | $\frac{3}{4}$ x $\frac{1}{2}$ | " 1.00 |
| Petaloid. | 1012 | $\frac{3}{4}$ x $\frac{3}{4}$ | " 1.00 |
| Petard. | 1013 | 1 x $\frac{1}{4}$ | " 1.60 |
| Perterpence. | 1014 | 1 x $\frac{3}{8}$ | " 1.60 |
| Petliar. | 1015 | 1 x 1 | " 1.60 |
| Petiolate. | 1256 | $1\frac{1}{4}$ x 1 | " 3.50 |
| Petiole. | 1257 | $1\frac{1}{4}$ x $1\frac{1}{4}$ | " 4.00 |
| Petit. | 1258 | $1\frac{1}{4}$ x $1\frac{1}{2}$ | " 5.00 |
| Petition. | 1259 | 2 x 2 | " 9.00 |

BLANK.

| Trade Word. | Cat No. | Size. | Price. |
|-------------|---------|---------------------------------|---------------------|
| Pettitoes | 1021 | $\frac{3}{8}$ x $\frac{1}{8}$ | each, \$0.50 |
| Petty. | 1022 | $\frac{3}{8}$ x $\frac{1}{4}$ | " .50 |
| Petulance. | 1023 | $\frac{3}{8}$ x $\frac{3}{8}$ | " .50 |
| Petulant. | 1024 | $\frac{1}{2}$ x $\frac{1}{8}$ | " .66 $\frac{2}{3}$ |
| Petunia. | 1025 | $\frac{1}{2}$ x $\frac{1}{4}$ | " .66 $\frac{2}{3}$ |
| Pew. | 1026 | $\frac{1}{2}$ x $\frac{3}{8}$ | " .66 $\frac{2}{3}$ |
| Pewter. | 1027 | $\frac{1}{2}$ x $\frac{1}{2}$ | " .66 $\frac{2}{3}$ |
| Phaeton. | 1030 | $\frac{3}{4}$ x $\frac{3}{8}$ | " 1.00 |
| Phantasm. | 1031 | $\frac{3}{4}$ x $\frac{1}{2}$ | " 1.00 |
| Phantom. | 1032 | $\frac{3}{4}$ x $\frac{3}{4}$ | " 1.00 |
| Pharisee. | 1033 | 1 x $\frac{1}{4}$ | " 1.60 |
| Pharmacist. | 1034 | 1 x $\frac{3}{8}$ | " 1.60 |
| Pharmacy. | 1035 | 1 x 1 | " 1.60 |
| Pharynx. | 1276 | $1\frac{1}{4}$ x 1 | " 3.50 |
| Phase. | 1277 | $1\frac{1}{4}$ x $1\frac{1}{4}$ | " 4.00 |
| Phasis. | 1278 | $1\frac{1}{4}$ x $1\frac{1}{2}$ | " 5.00 |
| Pheasant. | 1279 | 2 x 2 | " 9.00 |

IN MALLEABLE IRON.

COMBINATION.

| Trade Word. | Cat No. | Size. | Price. |
|----------------|---------|-------------------------------|--------------|
| Petitionary. | 1041 | $\frac{3}{8}$ x $\frac{1}{8}$ | each, \$0.45 |
| Petitioner. | 1042 | $\frac{3}{8}$ x $\frac{1}{4}$ | " .45 |
| Petrescent. | 1043 | $\frac{3}{8}$ x $\frac{3}{8}$ | " .45 |
| Petrification. | 1044 | $\frac{1}{2}$ x $\frac{1}{8}$ | " .60 |
| Petrify. | 1045 | $\frac{1}{2}$ x $\frac{1}{4}$ | " .60 |
| Petroleum. | 1046 | $\frac{1}{2}$ x $\frac{3}{8}$ | " .60 |
| Petrous. | 1047 | $\frac{1}{2}$ x $\frac{1}{2}$ | " .60 |
| Petticoat. | 1048 | $\frac{3}{4}$ x $\frac{3}{8}$ | " .90 |
| Pettily. | 1049 | $\frac{3}{4}$ x $\frac{1}{2}$ | " .90 |
| Pettiness. | 1050 | $\frac{3}{4}$ x $\frac{3}{4}$ | " .90 |
| Pettish. | 1051 | 1 x $\frac{1}{4}$ | " 1.45 |
| Pettishly. | 1052 | 1 x $\frac{3}{8}$ | " 1.45 |
| Pettishness. | 1053 | 1 x 1 | " 1.45 |

BLANK.

| Trade Word. | Cat No. | Size. | Price. |
|----------------|---------|-------------------------------|--------------|
| Phenominal. | 1061 | $\frac{3}{8}$ x $\frac{1}{8}$ | each, \$0.45 |
| Phenomenon | 1062 | $\frac{3}{8}$ x $\frac{1}{4}$ | " .45 |
| Phial. | 1063 | $\frac{3}{8}$ x $\frac{3}{8}$ | " .45 |
| Philander. | 1064 | $\frac{1}{2}$ x $\frac{1}{8}$ | " .60 |
| Philanthropic. | 1065 | $\frac{1}{2}$ x $\frac{1}{4}$ | " .60 |
| Phrenitic | 1066 | $\frac{1}{2}$ x $\frac{3}{8}$ | " .60 |
| Phrenologist | 1067 | $\frac{1}{2}$ x $\frac{1}{2}$ | " .60 |
| Phrenology. | 1068 | $\frac{3}{4}$ x $\frac{3}{8}$ | " .90 |
| Phrensy. | 1069 | $\frac{3}{4}$ x $\frac{1}{2}$ | " .90 |
| Physic. | 1070 | $\frac{3}{4}$ x $\frac{3}{4}$ | " .90 |
| Physical. | 1071 | 1 x $\frac{1}{4}$ | " 1.45 |
| Physically. | 1072 | 1 x $\frac{3}{8}$ | " 1.45 |
| Physician. | 1073 | 1 x 1 | " 1.45 |

INCANDESCENT LIGHT SUPPLIES.

THE MACALLEN SOLID MICA ELECTROLIERS

or separable joint.

In Composition Brass.



| Trade Word. | Cat. No. | Size. | Price Each. |
|-------------|----------|-------------------------------|-------------|
| Physics. | 1201. | $\frac{3}{8}$ x $\frac{1}{4}$ | \$0.60 |
| Physique. | 1202. | $\frac{3}{8}$ x $\frac{1}{4}$ | .60 |
| Pianist. | 1203. | $\frac{3}{8}$ x $\frac{3}{8}$ | .60 |
| Piano. | 1204. | $\frac{1}{2}$ x $\frac{1}{4}$ | .80 |
| Piazza. | 1205. | $\frac{1}{2}$ x $\frac{1}{4}$ | .80 |
| Picador. | 1206. | $\frac{1}{2}$ x $\frac{3}{8}$ | .80 |
| Picayune. | 1207. | $\frac{1}{2}$ x $\frac{1}{4}$ | .80 |
| Pickaxe. | 1210. | $\frac{3}{4}$ x $\frac{1}{2}$ | 1.20 |
| Picked. | 1211. | $\frac{3}{4}$ x $\frac{3}{4}$ | 1.20 |

In Malleable Iron.



| Trade Word. | Cat. No. | Size. | Price Each. |
|-------------|----------|-------------------------------|-------------------|
| Pickedness. | 1221. | $\frac{3}{8}$ x $\frac{1}{4}$ | \$0.50 |
| Pickrell. | 1222. | $\frac{3}{8}$ x $\frac{1}{4}$ | .50 |
| Picket. | 1223. | $\frac{3}{8}$ x $\frac{3}{8}$ | .50 |
| Picking. | 1224. | $\frac{1}{2}$ x $\frac{1}{4}$ | .66 $\frac{2}{3}$ |
| Pickle. | 1225. | $\frac{1}{2}$ x $\frac{1}{4}$ | .66 $\frac{2}{3}$ |
| Pickpocket. | 1226. | $\frac{1}{2}$ x $\frac{3}{8}$ | .66 $\frac{2}{3}$ |

THE MACALLEN SOLID MICA BRACKET JOINT.



In Composition Brass.

| COMBINATION. | | | |
|--------------|----------|-------------------------------|-------------|
| Trade Word. | Cat. No. | Size. | Price Each. |
| Pickwick. | 1121. | $\frac{3}{8}$ x $\frac{1}{4}$ | \$0.40 |
| Picnic. | 1122. | $\frac{3}{8}$ x $\frac{1}{4}$ | .40 |
| Pictorial. | 1123. | $\frac{3}{8}$ x $\frac{3}{8}$ | .40 |
| Picture. | 1124. | $\frac{1}{2}$ x $\frac{3}{8}$ | .54 |
| Picturesque. | 1125. | $\frac{1}{2}$ x $\frac{1}{4}$ | .54 |
| Piebald. | 1126. | $\frac{1}{2}$ x $\frac{3}{8}$ | .54 |

| BLANK. | | | |
|-------------|----------|-------------------------------|-------------|
| Trade Word. | Cat. No. | Size. | Price Each. |
| Piecemeal. | 1131. | $\frac{3}{8}$ x $\frac{1}{4}$ | \$0.40 |
| Pier. | 1132. | $\frac{3}{8}$ x $\frac{1}{4}$ | .40 |
| Pierce. | 1133. | $\frac{3}{8}$ x $\frac{3}{8}$ | .40 |
| Pierceable. | 1134. | $\frac{1}{2}$ x $\frac{1}{8}$ | .54 |
| Pierglass. | 1135. | $\frac{1}{2}$ x $\frac{1}{4}$ | .54 |
| Pierian. | 1136. | $\frac{1}{2}$ x $\frac{3}{8}$ | .54 |

In Malleable Iron.

| COMBINATION. | | | |
|--------------|----------|-------------------------------|-------------|
| Trade Word. | Cat. No. | Size. | Price Each. |
| Pietism. | 1141. | $\frac{3}{8}$ x $\frac{1}{4}$ | \$0.36 |
| Pietist. | 1142. | $\frac{3}{8}$ x $\frac{1}{4}$ | .36 |
| Piety. | 1143. | $\frac{3}{8}$ x $\frac{3}{8}$ | .36 |
| Pigeon. | 1144. | $\frac{1}{2}$ x $\frac{1}{4}$ | .50 |
| Piggery. | 1145. | $\frac{1}{2}$ x $\frac{1}{4}$ | .50 |
| Piggin. | 1146. | $\frac{1}{2}$ x $\frac{3}{8}$ | .50 |

| BLANK. | | | |
|-------------|----------|-------------------------------|-------------|
| Trade Word. | Cat. No. | Size. | Price Each. |
| Pigment. | 1151. | $\frac{3}{8}$ x $\frac{1}{4}$ | \$0.36 |
| Pigmy. | 1152. | $\frac{3}{8}$ x $\frac{1}{4}$ | .36 |
| Pike. | 1153. | $\frac{3}{8}$ x $\frac{3}{8}$ | .36 |
| Pilfer. | 1154. | $\frac{1}{2}$ x $\frac{1}{4}$ | .50 |
| Pilferer. | 1155. | $\frac{1}{2}$ x $\frac{1}{4}$ | .50 |
| Pilgrim. | 1156. | $\frac{1}{2}$ x $\frac{3}{8}$ | .50 |

SPECIAL SMALL SIZE PIPE JOINTS.

For combination fixtures.

In Composition Brass Only.

| Trade Word. | Cat. No. | Size. | Price Each. |
|-------------|----------|-------------------------------|-------------|
| Pontoon. | 1261. | $\frac{1}{8}$ x $\frac{1}{8}$ | \$0.40 |
| Poodle. | 1262. | $\frac{1}{4}$ x $\frac{1}{4}$ | .40 |
| Pool. | 1263. | $\frac{1}{4}$ x $\frac{1}{4}$ | .40 |

MALE AND FEMALE THREADED JOINTS.

For combination fixtures.

In Composition Brass.

| Trade Word. | Cat. No. | Size. | Price Each. |
|-------------|----------|-------------------------------|-------------------|
| Poor. | 1264. | $\frac{3}{8}$ x $\frac{3}{4}$ | \$0.50 |
| Poorly. | 1265. | $\frac{1}{2}$ x $\frac{1}{2}$ | .66 $\frac{2}{3}$ |

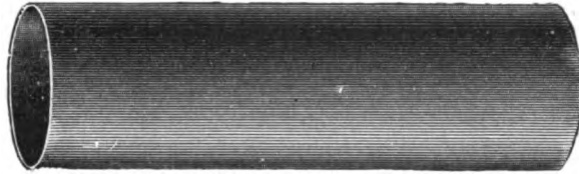
In Malleable Iron.

| Trade Word. | Cat. No. | Size. | Price Each. |
|-------------|----------|-------------------------------|-------------|
| Popish. | 1266. | $\frac{3}{8}$ x $\frac{3}{4}$ | \$0.45 |

INCANDESCENT LIGHT SUPPLIES.

POLISHED BRASS CASING.

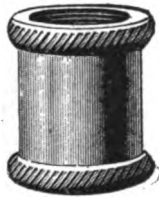
For covering iron pipe.



Trade Word.

| | | | | | | | | | Price. |
|-----------|---------------------|--------|--------------------|------|------|-------|----------|--------|--------|
| Bleat. | $\frac{3}{4}$ inch, | covers | $\frac{3}{4}$ inch | iron | pipe | ..... | per lb., | \$1.50 | |
| Bleating. | $1\frac{1}{8}$ " | " | $\frac{1}{2}$ " | " | " | ..... | " | 1.50 | |
| Bled. | $1\frac{1}{4}$ " | " | $\frac{3}{4}$ " | " | " | ..... | " | 1.50 | |

POLISHED BRASS STIFF JOINT.



E-453.

Iron pipe size.

| Trade Word. | | | Price. |
|-------------|--|------------|--------|
| Binding. | $\frac{3}{8} \times \frac{1}{8}$ in..... | per dozen, | \$4.80 |
| Pongee. | $\frac{1}{4} \times \frac{1}{4}$ in..... | " | 4.80 |
| Poniard. | $\frac{1}{4} \times \frac{1}{8}$ in..... | " | 4.80 |

MALE NIPPLE.



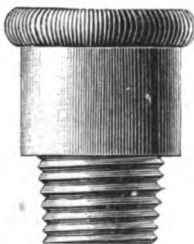
No. E-252.

Brass tubing size.

| Trade Word. | | Price. |
|-------------|--|-----------------|
| Blazer. | $\frac{1}{8} \times \frac{1}{8}$ in..... | per 100, \$5.00 |

TURNED LENGTHENING PIECE.

Polished brass.



No. 452.

Iron pipe sizes.

| Trade Word. | | Price. |
|--------------|--|-------------------|
| Pompousness. | $\frac{3}{8} \times \frac{3}{8}$ in..... | per dozen, \$3.50 |
| Ponder. | $\frac{3}{8} \times \frac{1}{4}$ in..... | " 3.50 |
| Ponderous. | $\frac{1}{4} \times \frac{1}{4}$ in..... | " 3.00 |

POLISHED BRASS BUSHING.



| Trade Word. | No. | | Price. |
|-------------|------|---|-----------------|
| Pontage. | 467. | $\frac{1}{8}$ in. iron or $\frac{3}{8}$ in. brass to burner or socket size. | per 100, \$6.00 |
| Pontiff. | 464. | $\frac{5}{8}$ in. brass to burner, | " 18.00 |

INCANDESCENT LIGHT SUPPLIES.

POLISHED BRASS FITTINGS.

Straight Nozzle.



No. E-450.

Brass tubing sizes.

| Trade Word. | | | Price. |
|-------------|----------------------------------|----------|---------|
| Bigot. | $\frac{3}{8} \times \frac{3}{8}$ | per 100, | \$ 6.00 |
| Bigoted. | $\frac{7}{8} \times \frac{3}{8}$ | " " | 10.00 |
| Bigotry. | $\frac{1}{2} \times \frac{3}{8}$ | " " | 10.00 |
| Bilander. | $\frac{3}{8} \times \frac{3}{8}$ | " " | 12.50 |

Elbow Nozzle 45°.



No. E-455 1/4.

Brass tubing sizes.

| Trade Word. | | | Price. |
|-------------|----------------------------------|----------|---------|
| Binary. | $\frac{1}{8} \times \frac{1}{8}$ | per 100, | \$12.50 |
| Bind. | $\frac{1}{4} \times \frac{1}{8}$ | " " | 15 00 |
| Bindery. | $\frac{3}{8} \times \frac{1}{8}$ | " " | 20.00 |

Elbow Nozzle.

Turned brass.



No. E-456 1/4.

Brass tubing sizes.

| Trade Word. | | | Price. |
|-------------|----------------------------------|----------|---------|
| Biledust. | $\frac{3}{8} \times \frac{3}{8}$ | per 100, | \$12.50 |
| Bilge. | $\frac{7}{8} \times \frac{3}{8}$ | " " | 12.50 |
| Bilged. | $\frac{1}{2} \times \frac{3}{8}$ | " " | 12.50 |

Brass Bushings.



No. E-460.

Iron pipe sizes.

| Trade Word. | | | Price. |
|-------------|----------------------------------|----------|--------|
| Bilious. | $\frac{1}{4} \times \frac{1}{8}$ | per 100, | \$5.00 |
| Bilk. | $\frac{3}{8} \times \frac{1}{4}$ | " " | 6.50 |
| Bilked. | $\frac{1}{2} \times \frac{3}{8}$ | " " | 8.70 |
| Bilking. | $\frac{3}{4} \times \frac{1}{2}$ | " " | 15.65 |
| Billbook. | $1 \times \frac{1}{4}$ | " " | 24.35 |

Angle Nozzle.



No. E-451.

Brass tubing sizes.

| Trade Word. | | | Price. |
|-------------|----------------------------------|----------|---------|
| Billet. | $\frac{3}{8} \times \frac{3}{8}$ | per 100, | \$12.50 |
| Billeting. | $\frac{7}{8} \times \frac{3}{8}$ | " " | 12.50 |
| Billiard. | $\frac{1}{2} \times \frac{3}{8}$ | " " | 12.50 |

Acorn Cap.



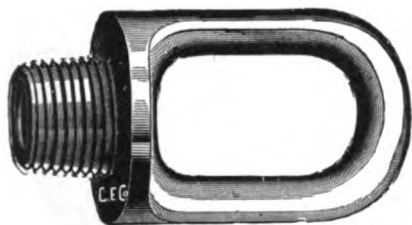
No. 465.

Iron pipe sizes.

| Trade Word. | | | Price. |
|-------------|---------------------|----------|---------|
| Pomposity. | $\frac{1}{8}$ inch. | per 100, | \$15.00 |
| Pompous. | $\frac{1}{4}$ " | " " | 15.00 |
| Pompously. | $\frac{3}{8}$ " | " " | 15.00 |

INCANDESCENT LIGHT SUPPLIES.

IRON CHANDELIER LOOPS.



| Trade Word. | No. | | Price. |
|-------------|------|-------------------------------------|--------|
| Abashed. | 450. | $\frac{3}{8}$ inch, male, per doz., | \$1.00 |
| Abashing. | 452. | $\frac{1}{2}$ " " " | 1.00 |
| Abatement. | 451. | $\frac{3}{8}$ " female, " | 1.00 |
| Abater. | 453. | $\frac{1}{2}$ " " " | 1.00 |

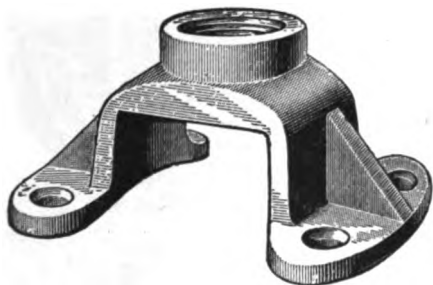
IRON CHANDELIER HOOKS.



| Trade Word. | No. | | Price. |
|--------------|------|-------------------------------------|--------|
| Abacus. | 445. | $\frac{3}{8}$ inch, male, per doz., | \$1.00 |
| Abaft. | 447. | $\frac{1}{2}$ " " " | 1.00 |
| Abandoning. | 446. | $\frac{3}{8}$ " female, " | 1.00 |
| Abandonment. | 448. | $\frac{1}{2}$ " " " | 1.00 |

DEUPODS.

Gray iron.



| Trade Word. | | Iron Pipe. Size. | Price. |
|-------------|-------------------|-------------------------|--------|
| Pitiful. | Diameter, tapped, | $\frac{1}{8}$ per doz., | \$1.00 |
| Pitiless. | " " " | $\frac{1}{4}$ " " | 1.00 |
| Pitman. | " " " | $\frac{3}{8}$ " " | 1.00 |

CEILING FLANGE.

Gray iron.



| Trade Word. | | Iron Pipe. Size. | Price per 100. |
|-------------|-------------------------|---------------------|-------------------|
| Pitsan. | 3 in. diameter, tapped, | $\frac{1}{8}$ | \$6.50 |
| Pittance. | 3 " " " | $\frac{1}{4}$ | 6.50 |
| Pituitary. | 4 " " " | $\frac{1}{4}$ | 7.00 |
| Pituitous. | 4 " " " | $\frac{3}{8}$ | 7.00 |

IRON CROWFOOT.

No. 442.

| Trade Word. | | Size. | Price. |
|-------------|---------------------------------------|-------------------------------|--------|
| Abominably. | $2\frac{3}{4}$ diameter, 1 inch high, | $\frac{1}{8}$ each, | \$0.05 |
| Aboriginal. | $2\frac{3}{4}$ " 1 " " | $\frac{1}{4}$ " | .05 |
| Abortion. | 3 " 1 " " | $\frac{3}{8}$ " | .05 |

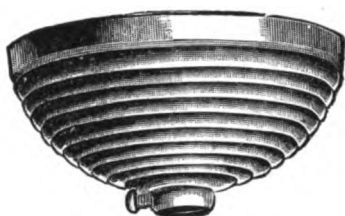
INCANDESCENT LIGHT SUPPLIES.

CANOPIES AND WALL PLATES.

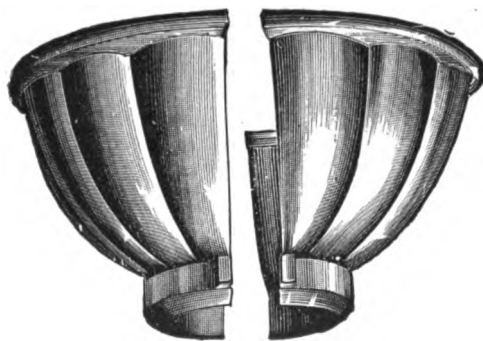
POLISHED BRASS.



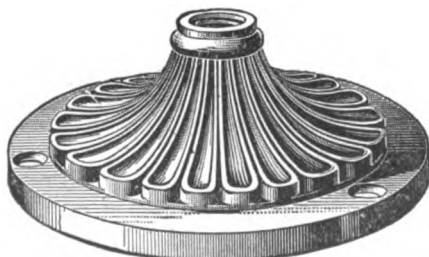
No. 357.



No. 343.



No. 370.
Split Canopy.



No. 331.
Cast Brass Wall Plate.

No. 357.
Width, 5 inches; Depth, 4 in.
Trade Word. Price.
Ordinary. each, \$0.60

No. 347.
Width, 5 inches; Depth, 4 in.
Trade Word. Price.
Ordinary. each, \$0.50

No. 341.
Width, 4½ in.; Depth, 2½ in.
Trade Word. Price.
Ordinary. each, \$0.45

No. 340.
Width, 3½ in.; Depth, 1½ in.
Trade Word. Price.
Ordinary. each, \$0.25

No. 343.
Width, 4½ in.; Depth, 1½ in.
Trade Word. Price.
Oregon. each, \$0.30

No. 342.
Width, 3 in.; Depth, 1½ in.
Trade Word. Price.
Organist. each, \$0.25

No. 348.
Standard for Brackets.
Width, 3 in.; Depth, 1½ in.
Trade Word. Price.
Organize. each, \$0.20

Split Canopies.

Canopies of any style illustrated on this page will be furnished SPLIT, at double list prices, subject to regular discounts.

Cast Brass Wall Plate.

3-inch Diameter.

| | | |
|-------------------------------------|------|--------------|
| Trade Word. | No. | Price. |
| Female, ¾ inch Brass. | | |
| Oriental. | 331. | each, \$0.30 |
| Male, ¾ inch brass; to take socket. | | |
| Oriel. | 332. | each, 0.30 |

2-inch Diameter.

| | | |
|-------------------------------------|------|--------------|
| Trade Word. | No. | Price. |
| Female, ¾ inch Brass. | | |
| Oriental. | 325. | each, \$0.10 |
| Male, ¾ inch brass; to take socket. | | |
| Oriental. | 326. | each, \$0.12 |

3-inch Diameter.

| | | |
|-------------------------------------|------|--------------|
| Trade Word. | No. | Price. |
| Female, ¾ inch Brass. | | |
| Orifice. | 327. | each, \$0.25 |
| Male, ¾ inch brass; to take socket. | | |
| Origin. | 328. | each, \$0.25 |



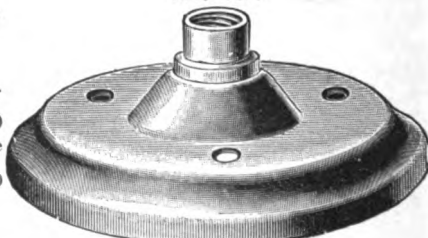
No. 347.



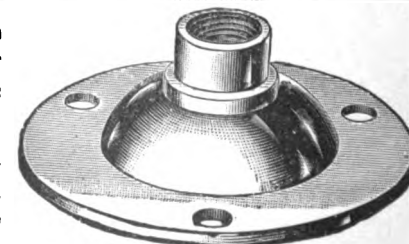
No. 341.



No. 348.



No. 327.



No. 325.

INCANDESCENT LIGHT SUPPLIES.

FIXTURE BRACKETS.



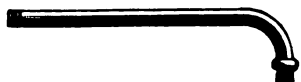
| Trade Word. | No. 063. | Scale, $\frac{1}{4}$. | Price. |
|--------------|-----------------|------------------------|---------|
| Placidity. | 4-inch, per 100 | | \$14.00 |
| Placidiness. | 6 " " 100 | | 16.00 |
| Plagiarism. | 8 " " 100 | | 20.00 |
| Plagarize. | 10 " " 100 | | 23.00 |
| Queerly. | 12 " " 100 | | 27.50 |



| Trade Word. | No. 056. | Scale, $\frac{1}{4}$. | Price. |
|-------------|-----------------|------------------------|---------|
| Plagiary. | 6-inch, per 100 | | \$26.00 |
| Plague. | 10 " " 100 | | 33.00 |



| Trade Word. | No. 055. | Scale, $\frac{1}{4}$. | Price. |
|-------------|-----------------|------------------------|---------|
| Plaid. | 6-inch, per 100 | | \$36.00 |
| Plainly. | 10 " " 100 | | 43.00 |



| Trade Word. | No. 065. | Scale, $\frac{1}{4}$. | Price. |
|-------------|-----------------|------------------------|---------|
| Plainness. | 4-inch, per 100 | | \$14.00 |
| Plaint. | 6 " " 100 | | 16.00 |
| Plaintiff. | 8 " " 100 | | 20.00 |
| Plaintive. | 10 " " 100 | | 23.00 |
| Queerness. | 12 " " 100 | | 27.50 |



| Trade Word. | No. 061. | Scale, $\frac{1}{4}$. | Price. |
|-------------|-----------------|------------------------|---------|
| Plait. | 4-inch, per 100 | | \$14.00 |
| Plan. | 6 " " 100 | | 16.00 |
| Planet. | 8 " " 100 | | 20.00 |
| Planetary. | 10 " " 100 | | 23.00 |
| Quell. | 12 " " 100 | | 27.50 |

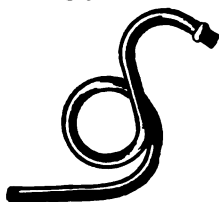


| Trade Word. | No. 062. | Scale, $\frac{1}{4}$. | Price. |
|-------------|----------|------------------------|---------|
| Planish. | Per 100 | | \$35.00 |

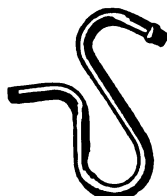
| Trade Word. | Scale, $\frac{1}{4}$. | Price. |
|--------------|------------------------|---------|
| According. | 6-inch, per 100 | \$16.00 |
| Accordingly. | 8 " " 100 | 20.00 |

Straight—No. 2036.

| Trade Word. | Scale, $\frac{1}{4}$. | Price. |
|--------------|------------------------|---------|
| Account. | 10-inch, per 100 | \$23.00 |
| Accountable. | 12 " " 100 | 27.50 |



| Trade Word. | No. 057. | Scale, $\frac{1}{4}$. | Price. |
|-------------|----------|------------------------|---------|
| Pilliger. | Per 100 | | \$35.00 |



| Trade Word. | No. 058. | Scale, $\frac{1}{4}$. | Price. |
|-------------|----------|------------------------|---------|
| Pillar. | Per 100 | | \$35.00 |



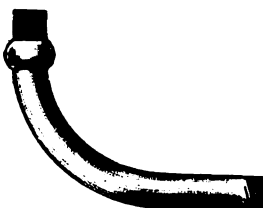
| Trade Word. | No. 047. | Scale, $\frac{1}{4}$. | Price. |
|-------------|----------|------------------------|---------|
| Pillion. | Per 100 | | \$35.00 |



| Trade Word. | No. 048. | Scale, $\frac{1}{4}$. | Price. |
|-------------|----------|------------------------|---------|
| Pillory. | Per 100 | | \$35.00 |



| Trade Word. | No. 060. | Scale, $\frac{1}{4}$. | Price. |
|-------------|----------|------------------------|---------|
| Pillars. | Per 100 | | \$10.00 |



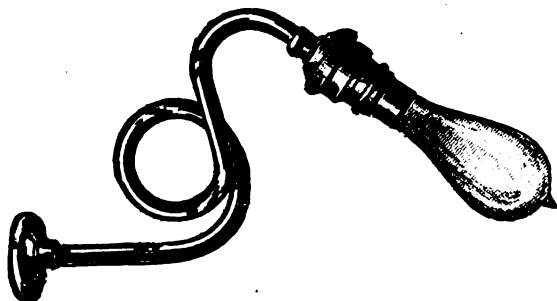
| Trade Word. | No. 045. | Scale, $\frac{1}{4}$. | Price. |
|-------------|----------|------------------------|---------|
| Pilosity. | Per 100 | | \$16.00 |



| Trade Word. | No. 059. | Scale, $\frac{1}{4}$. | Price. |
|-------------|----------|------------------------|---------|
| Pilose. | Per 100 | | \$30.00 |

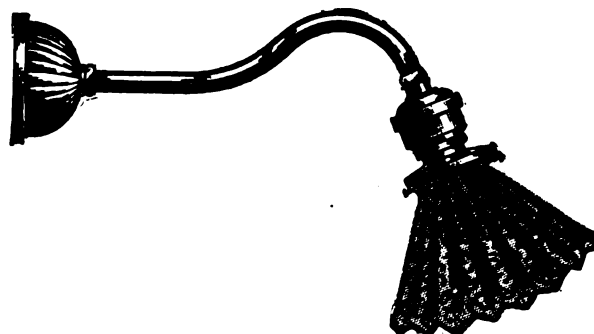


| Trade Word. | No. 046. | Scale, $\frac{1}{4}$. | Price. |
|-------------|----------|------------------------|---------|
| Pilot. | Per 100 | | \$16.50 |



No. 057 Bracket, with Wall Plate No. 325

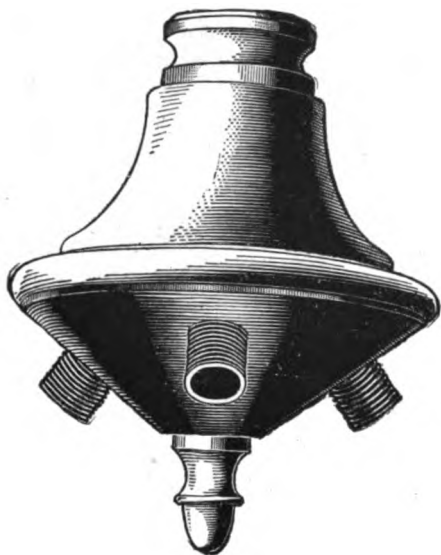
Any of above Bracket Arms furnished with Wall Plate No. 325 as per cut No. 057, at the price of Bracket added to price of Wall Plate No. 325 (see page 58) subject to regular discount for each.



No. 061. Bracket, with Canopy and Crowfoot.
(Canopy No. 348.)

Any of the above Bracket Arms furnished with Canopies No. 340 or 348 (see page 58) and Crowfoot No. 442 (See page 57) as per cut No. 061 at the price of Bracket added to the price of Canopy and Crowfoot Subject to the regular discount for each.

INCANDESCENT LIGHT SUPPLIES.



BELL CLUSTER.

Polished Brass.

Removable cap for wiring; tapped for $\frac{3}{8}$ inch iron pipe.

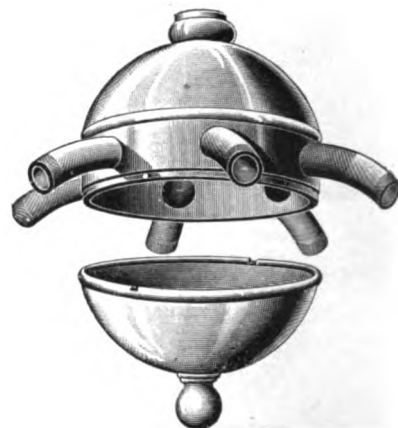
| Trade Word. | | Price. |
|--------------|---------------------|--------|
| Philomathy. | 2 lights..... each, | \$0.55 |
| Philomel. | 3 " | .60 |
| Philopena. | 4 " | .65 |
| Philosopher. | 5 " | .70 |
| Philosophic. | 6 " | .80 |

SEPARABLE BALL CLUSTER.

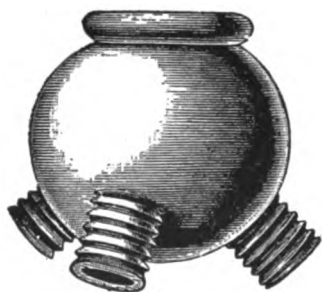
Polished Brass.

Diameter, 3 inches; bottom ornament is removable and may be replaced by a nipple, so that another light may be added.

| Trade Word. | | Price. |
|---------------|---------------------|--------|
| Philosophist. | 2 lights..... each, | \$1.30 |
| Philosophize. | 3 " | 1.40 |
| Philosophy. | 4 " | 1.55 |
| Philter. | 5 " | 1.85 |
| Phiz. | 6 " | 2.00 |
| Phlegmatic. | 8 " | 2.55 |
| Polygamist. | 10 " | 3.25 |
| Polyglot. | 12 " | 3.90 |
| Polygram. | 14 " | 4.75 |
| Ocular. | 16 " | 6.55 |



No. 250.



No. 270.

SOLID CLUSTER BALLS.

Polished Brass.

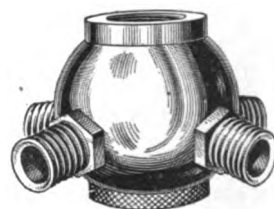
Tapped for $\frac{3}{8}$ inch iron pipe.

| Trade Word. | | Price. |
|-------------|---------------------|--------|
| Phlogistic. | 2 lights..... each, | \$0.24 |
| Phlox. | 3 " | .28 |
| Phonetic. | 4 " | .32 |
| Phonetist. | 5 " | .40 |

SOLID CLUSTER BELLS.

Tapped for $\frac{3}{8}$ inch iron pipe; removable plate in bottom for wiring.

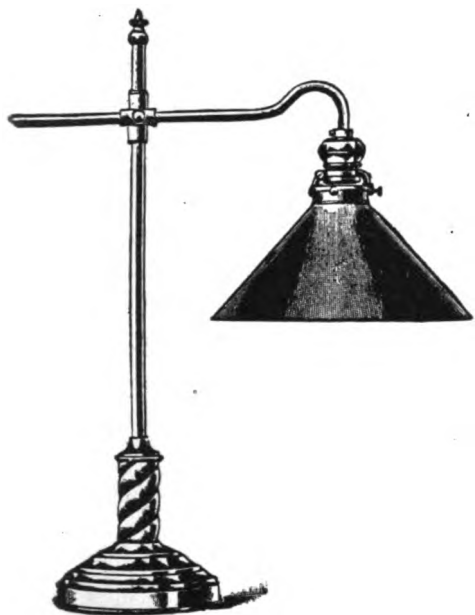
| Trade Word. | No. | Price. |
|-------------|-----------------|--------------|
| Pomace. | 4 lights, 1241. | each, \$0.40 |
| Pomaceous. | 5 " 1242. | " .50 |
| Pomatune. | 6 " 1243. | " .60 |



INCANDESCENT LIGHT SUPPLIES.

ELECTRIC PORTABLES.

Finished in polished brass.



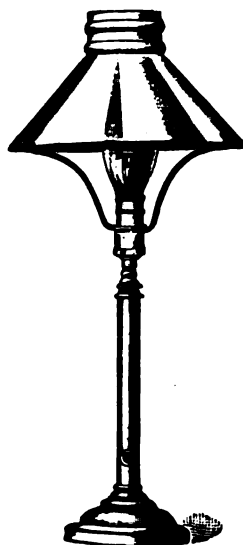
No. 2036.

Height 23 inches, with 6 inch extension.
 Style E-67, green laid reflector, 10 in.

Trade Word.

Price.

Bodice. Without reflector.....each, \$3.00

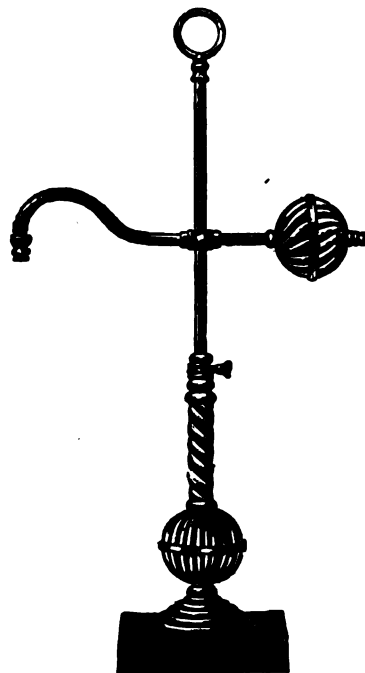


No. 35.

Trade Word.

Porpoise. Desk portable
 only.....each, \$1 50

Porridge. Wired complete, with key socket,
 attaching plug and
 cord, without shade
each, \$3.00



No. 2039.

Height 18 inches with 24 inch
 extension. Finished in polished
 brass or gold.

Trade Word.

Price.

Bode.....each, \$5.00



No. 30. Portable.

COMBINATION
BRACKET
AND
DESK LAMP.

No. 30. Bracket.

Trade Word.

Price.

Body. Portable with shade..... \$4.00

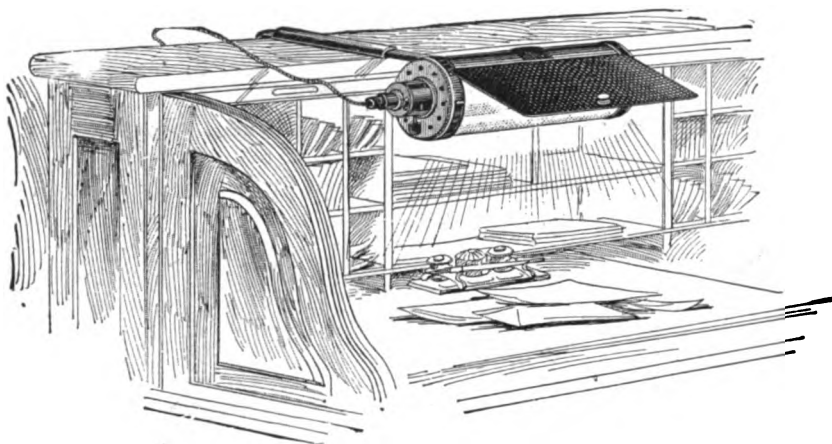
Bodkin. Or, wired complete, with key socket, attachment plug,
 flexible cord and shade..... 4.50

We can furnish shades in the following colors: pink, red, yellow or
 dark green.

When ordering give color of shade desired.

INCANDESCENT LIGHT SUPPLIES.

KINSMAN ROLL TOP DESK LIGHT.



Nickel plated, will take a 16 or 32 C. P. lamp.

In ordering please specify style of socket required.

Trade Word.

Negation. Complete with socket.....each, \$9.00

Price.

KINSMAN PORTABLE DESK LIGHT.



No. 1 portable, nickel plated.

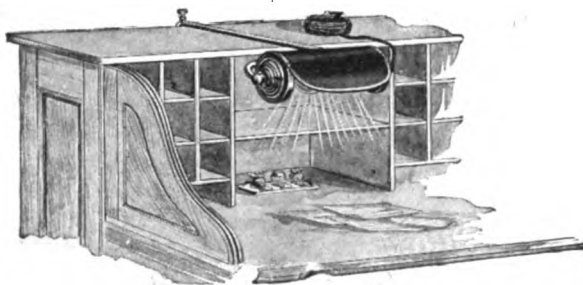
Trade Word. No.

Price.

Negative. 1. Portable

....each, \$12 00

CENTRAL ROLL TOP DESK LIGHT.



New, novel, neat.

Is adjustable and extends in and out. Cylinder revolves to properly shade the eyes. Cylinder is celluloid, green outside and white lined.

Trade Word. No.

Price.

Quaggy. 1. Finished oxidized copper. each, \$7.50

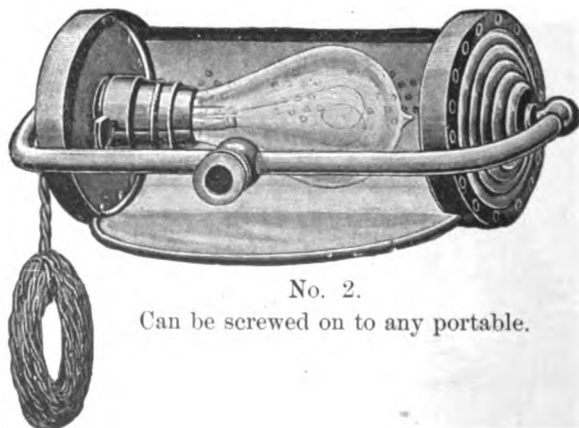
CENTRAL PORTABLE DESK LIGHT.

Is provided with key socket and 10 feet of silk cord. For 16 candle power lamp only.

Trade Word. No.

Price.

Quagmire. 2. Finished oxidized copper..each, \$6.00

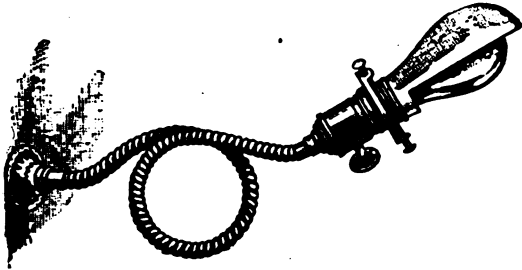


No. 2.

Can be screwed on to any portable.

INCANDESCENT LIGHT SUPPLIES.

ALMOND FLEXIBLE BRACKET.

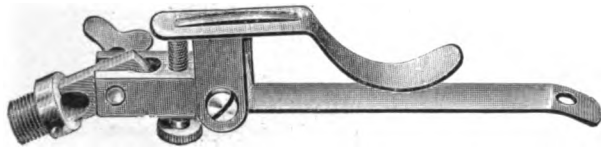


| Trade Word. | Length. | Price. |
|-------------|--------------|--------------|
| Auditory. | 6 inch | each, \$1.00 |
| Augment. | 9 " | " 1.10 |
| Auk. | 12 " | " 1.25 |
| Aunt. | 15 " | " 1.50 |
| Aurora. | 18 " | " 1.85 |
| Pilgrimage. | 24 " | " 2.50 |

Prices include flexible bracket only.

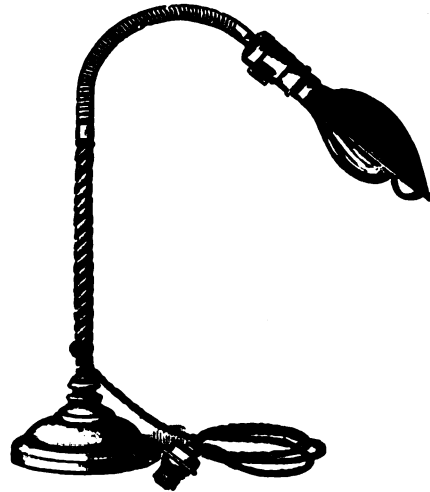
CENTRAL DESK CLAMP.

A perfect device for attaching a lamp to any portion of a desk. Adjusted to fit any thickness of shelf in a desk. Lamps can also be adjusted to any angle.



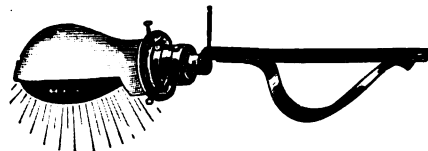
| Trade Word. | Price. |
|--------------------------------|--------------|
| Pace. Central desk clamp | each, \$1.00 |

ALMOND FLEXIBLE ARM AND STAND.



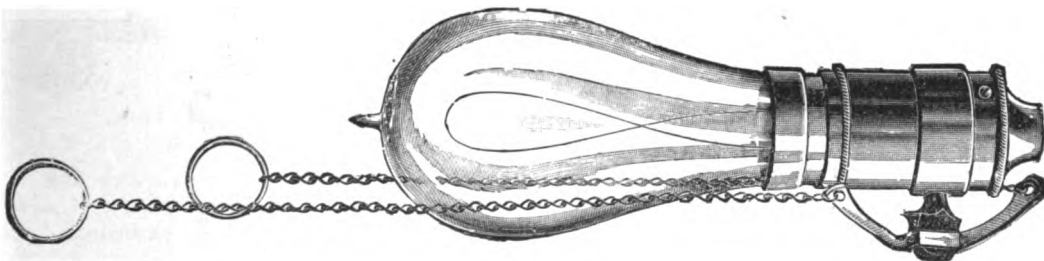
| Trade Word. | Price. |
|--|--------|
| Adjured. Complete, with key socket, attachment plug, 12 feet silk cord, shade-holder and aluminum or glass half shade..... | \$6.00 |
| Adjuring. Stand and arm only | 3.50 |

PERFECTION DESK CLAMP.



| Trade Word. | Price. |
|---------------------------|---------------|
| Adjutage. Clamp only..... | each, \$0.80. |

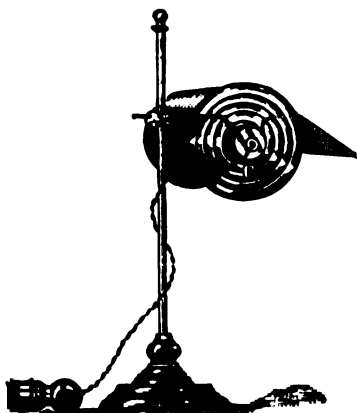
LEWIS ATTACHMENT.



This attachment is placed upon the key of the socket and is designed to facilitate turning the lamp on and off, when same is placed too high to be conveniently handled otherwise.

| Trade Word. | Price. |
|--|--------------|
| Adverse. With chain 9 inches long..... | each, \$0.40 |

INCANDESCENT LIGHT SUPPLIES.



Desk Portable.

Adjustable to different heights.

| Trade Word. | Price. |
|---|--------|
| Portray. Nickel plated.....each, \$4.50 | |
| Portress. " " frame, hood enameled green " 4.25 | |

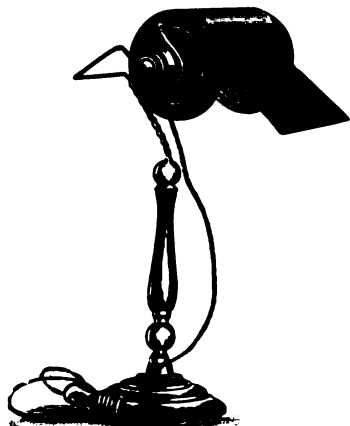


Typewriter Lamp.

Stand 15 inches high, casts the light well over the machine and copy.

| Trade Word. | Price. |
|--|--------|
| Pose. Nickel plated.....each, \$3.35 | |
| Position. " " frame, hood enameled green. " 3.10 | |

Desk Portable.

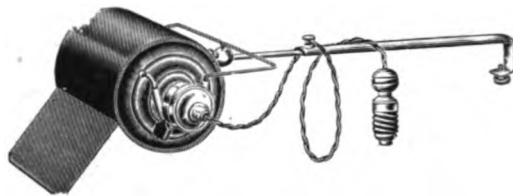


No. 1.

Stand natural wood finish, nickel plated frame.

| Trade Word. | Price. |
|---|--------|
| Positive. Complete with N. P. hood.....each, \$3.25 | |
| Positiveness. " " hood green enameled.... " 3.00 | |

ESPERSON ADJUSTABLE DESK LAMPS AND PORTABLES.



Roll Top Desk Lamp.

| Trade Word. | Price. |
|--|--------|
| Possess. Nickel plated.....each, \$3.75 | |
| Possessing. " " frame, hood enameled green. " 3.50 | |



Bed Lamp.

Is made adjustable to hang over the head of the bed and can be removed readily.

| Trade Word. | Price. |
|---|--------|
| Possession. Nickel plated.....each, \$3.50 | |
| Possessor. " " frame, hood enameled green. " 3.00 | |

Family Circle Lamp.



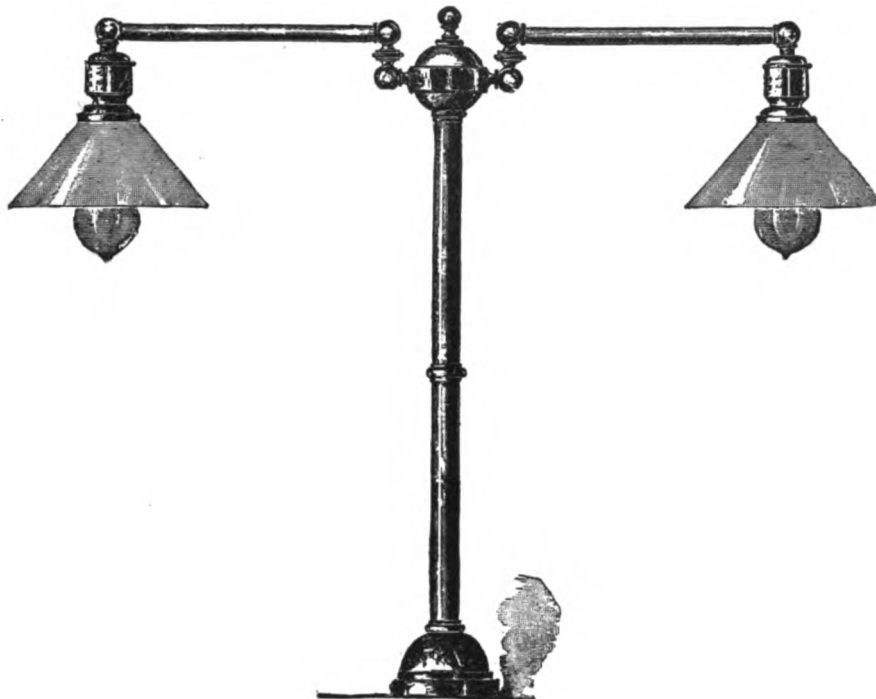
Makes a powerful concentrated light.

| Trade Word. | Price. |
|--|--------|
| Post. Complete with shade.....each, \$6.00 | |

INCANDESCENT LIGHT SUPPLIES.

SINGLE SWING STANDARDS.

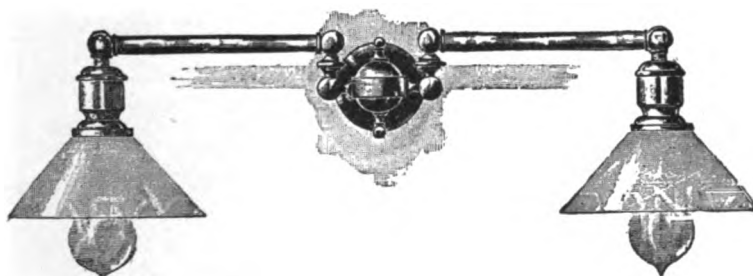
Finished in polished brass. Prices do not include lamps, sockets, shades or wiring.



| Trade Word. | No. | | Price. |
|-------------|-----|--|--------|
| Plantation. | 38. | 1 light single swing standard, extends 12 inches.....each, | \$3.25 |
| Planter. | 37. | 2 " " " " " " 24 " " | 4.75 |

SWING BRACKETS.

Finished in polished brass, prices do not include lamps, sockets, shades or wiring.



No. 52.

No. 51.

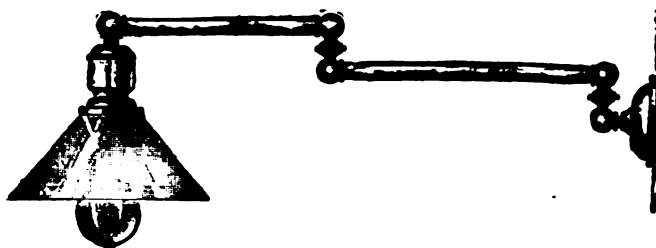
Double swing electric bracket.

| Trade Word. | Price. |
|-----------------------------------|--------|
| Plash. Spread 24 inches.....each, | \$3.00 |

No. 50.

Single swing electric bracket.

| Trade Word. | Price. |
|-------------------------------------|--------|
| Plaster. Spread 12 inches.....each, | \$1.50 |



No. 51.

No. 52.

2 light electric swing brackets.

| Trade Word. | Price. |
|--|--------|
| Planticle. Single swing, spread 24 inches..... | \$5.50 |

INCANDESCENT LIGHT SUPPLIES.

ELECTRIC BRACKETS.

Finished in polished brass. Prices do not include lamps, sockets, shades or wiring.



No. 168 1/4.

| Trade Word. | No. | Price. |
|--------------|---|--------|
| Phosphorous. | 167 1/4. 1 light complete with canopy and crowfoot..each, | \$1.25 |
| Piping. | 168 1/4. 2-light complete with canopy and crowfoot..each, | 1.75 |



No. 153.

| Trade Word. | No. | Price. |
|-------------|---|--------|
| Pippin. | 153. Complete with canopy and crowfoot, each..... | \$1.50 |

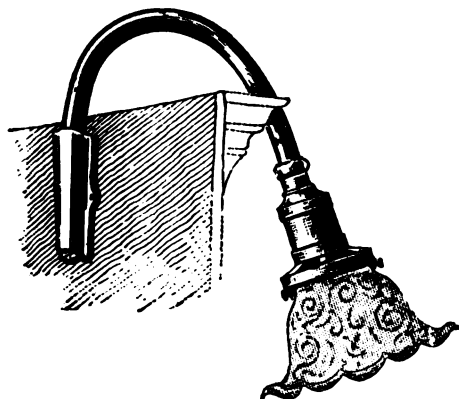


No. 188.

Switchboard Bracket.

With canopy and nuts for attaching.

| Trade Word. | No. | Price. |
|--------------|--------------------------------|--------|
| Pivet. | 188. 1 light, electric...each, | \$1.50 |
| Placability. | 189. 2 " " " " .. | 2.10 |



No. 44.

Partition Bracket.

For attaching to back of partitions, etc., including flange.

| Trade Word. | No. | Price. |
|-------------|------------------------------|--------|
| Placard. | 44. Partition bracket..each, | \$0.70 |



No. 60.

Wall Bracket.

| Trade Word. | No. | Price. |
|-------------|-------------|--------|
| Placid. | 60. ..each, | \$0.70 |



No. 42.

Shelf Bracket.

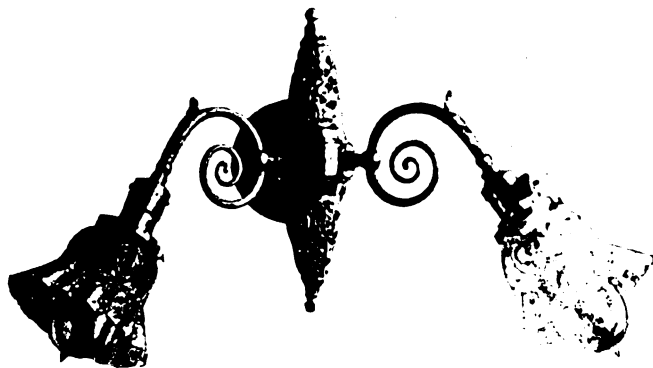
With No. 327 wall plate, 6 inch drop to socket.

| Trade Word. | No. | Price. |
|-------------|------------|--------|
| Placable. | 42. .each, | \$0.75 |

INCANDESCENT LIGHT SUPPLIES.

ELECTRIC BRACKETS.

Finished rich gilt. No glassware, sockets or lamps included unless mentioned. These brackets are wired (with approved wire) at the prices named.



No. 6513.

Extends 8 inches, spread 12 inches.

| Trade Word. | No. | | Price. |
|-------------|-------|------------|---------------|
| Foamed | 6513. | 2 lights.. | each, \$ 7.00 |
| Foaming. | 6513. | 3 " | " 12.50 |



No. 6523.

Extends 8 inches.

| Trade Word. | No. | | Price. |
|-------------|------|---------------|---------------|
| Foamy. | 6523 | 1 light | each, \$13.50 |

Price includes stalactites.



No. 6515.

Extends 10 inches, spread 13 inches.

| Trade Word. | No. | | Price. |
|-------------|-------|--------------|---------------|
| Fob. | 6515. | 2 lights ... | each, \$ 9.00 |
| Focusing. | 6515. | 3 " | " 11.00 |

No. 6505.

| Trade Word. | No. | | Price. |
|-------------|-------|---------------|---------------|
| Fodder. | 6505. | 2 lights | each, \$22.00 |

Price includes stalactites.



No. 6505.

Extends 9 inches, spread 15 inches.

INCANDESCENT LIGHT SUPPLIES.

ELECTRIC BRACKETS AND ROSETTES.

Finished rich gilt. Prices do not include lamps, sockets, shades or shade holders. These fixtures are wired (with approved wire) at prices named.



No. 9623.
Trade Word. No. 9623. 1 lighteach, \$8.00
Obstacle.



No. 10723.
Trade Word. No. 10723. 2 lights each, \$11.00
Obstinacy.



No. 1793.
Complete with etched ball 6 inches in diameter, cut star.
Trade Word. No. 1793. 1 lighteach, \$10.00
Obstinate.



No. 2693.
Trade Word. No. 2693. 4 lightseach, \$30.00
Obstruct.
Obstruction. 2693. 5 " " 35.00
Obtained. 2693. 6 " " 40.00



No. 1054.
Trade Word. No. 1054. 2 lights, no
Obtainable. husk, each, \$ 8.00
Obtrude. 1052. 2 lights, with
husk, each 10.50

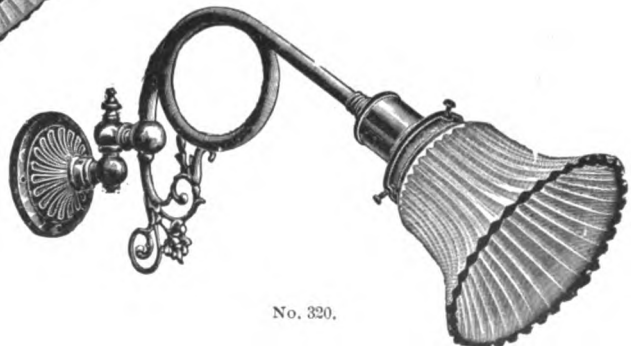


No. 6293.
Trade Word. No. 6293. 1 light.....each, \$2.10
Obtrusion.



No. 326.
Extends 10 inches.

No. 326.
Spread 6 inches from center of nozzles.
Trade Word. No. 326. 2 lights.....each, \$4.00
Foe, 326. 3 " " 4.50
Foeman, 326. 3 " " 4.50



No. 320.

No. 320.
Swing Bracket, extends 12 inches.
Trade Word. No. 320. Each.... \$4.25
Fog.

INCANDESCENT LIGHT SUPPLIES.

ELECTRIC PENDANTS.

Finished rich gilt. Prices include glassware as shown except on No. 6498. No sockets or lamps included unless mentioned. These pendants are wired (with approved wire) at the prices named.



No. 6485.

Length 36 in., spread 18 in.

| | |
|-----------------|---------|
| | Price |
| Trade Word. No. | Each. |
| Foggily. 6485.. | \$16.00 |



No. 6483.

Length 36 in., spread 6 in.

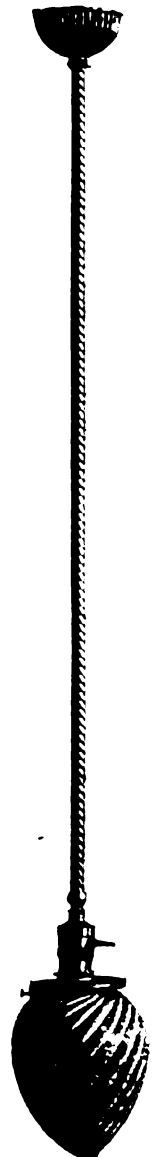
| | |
|-------------------|---------|
| | Price |
| Trade Word. No. | Each. |
| Fogginess. 6483.. | \$11.00 |



No. 6495.

Length 36 in.

| | |
|-----------------|--------|
| | Price |
| Trade Word. No. | Each. |
| Foggy. 6495.. | \$7.50 |



No. 6498.

Length 36 in.

| | |
|-----------------|---------|
| | Price |
| Trade Word. No. | Each. |
| Foggism. 6498.. | \$3.00. |

INCANDESCENT LIGHT SUPPLIES.

ELECTRIC AND COMBINATION NEWEL POSTS.

Finished rich gilt. Prices include glassware as shown, except on No. 9002 and No. 3023, but no sockets, electric holders or lamps. These fixtures are wired (with approved wire) at the prices named.



No. 9002.

Height 26 inches, base 6 inches.

| Trade Word. | No. | Price Each. |
|-------------|------------------------------|-------------|
| Foiled. | 9002. 1 gas, 2 electric..... | \$30.00 |
| Foulness. | 9002. 1 gas, 3 electric..... | 35.00 |

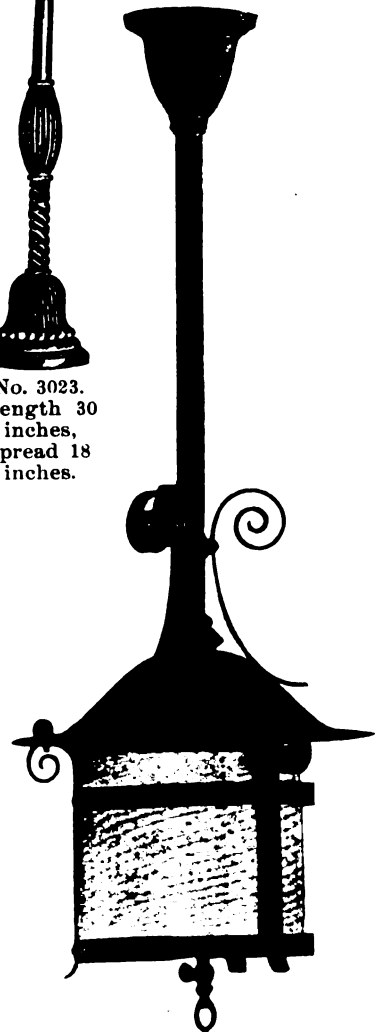
| Trade Word. | No. | Price Each. |
|-------------|------------------------------|-------------|
| Foible. | 3023. 1 gas, 2 electric..... | \$12.80 |
| Foil. | 3023. 1 gas, 3 electric..... | 18.00 |
| Foundling. | 6603. | 24.00 |
| Foundry. | 0400. | 12.00 |

No. 3023.
Length 30
inches,
spread 18
inches.

Bronze Statue.

No. 6603

Height 25 in., base 7 in.



Wrought Iron Lantern.

No. 0400.

Length 36 in.

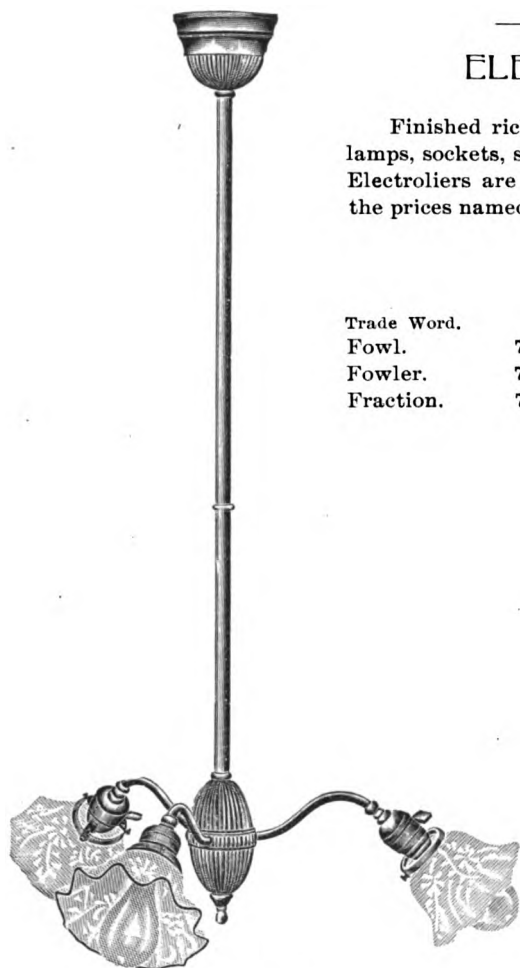
INCANDESCENT LIGHT SUPPLIES.

ELECTROLIERS.

Finished rich gilt. Prices do not include lamps, sockets, shades or shade holders. These Electroliers are wired (with approved wire) at the prices named.

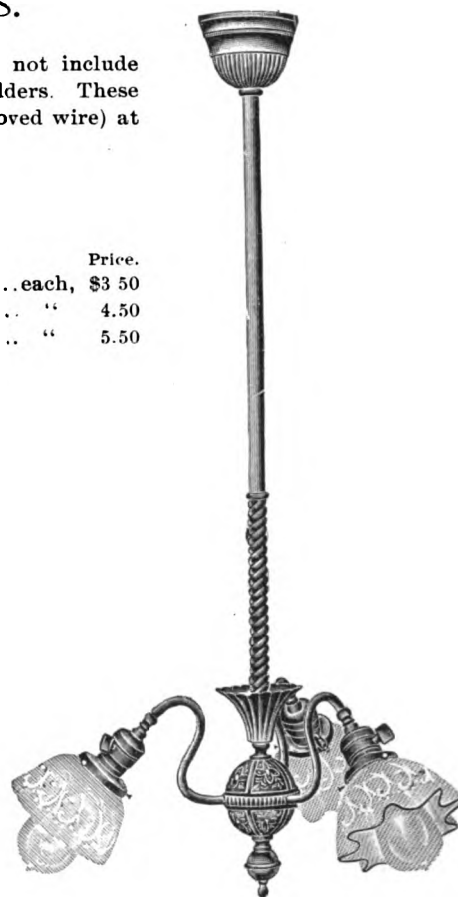
No. 7593.

| Trade Word. | No. | Price. |
|-------------|---------------------------|--------|
| Fowl. | 7593. 2 lights .....each, | \$3 50 |
| Fowler. | 7593. 3 " " | 4.50 |
| Fraction. | 7593. 4 " " | 5.50 |



No. 7593.

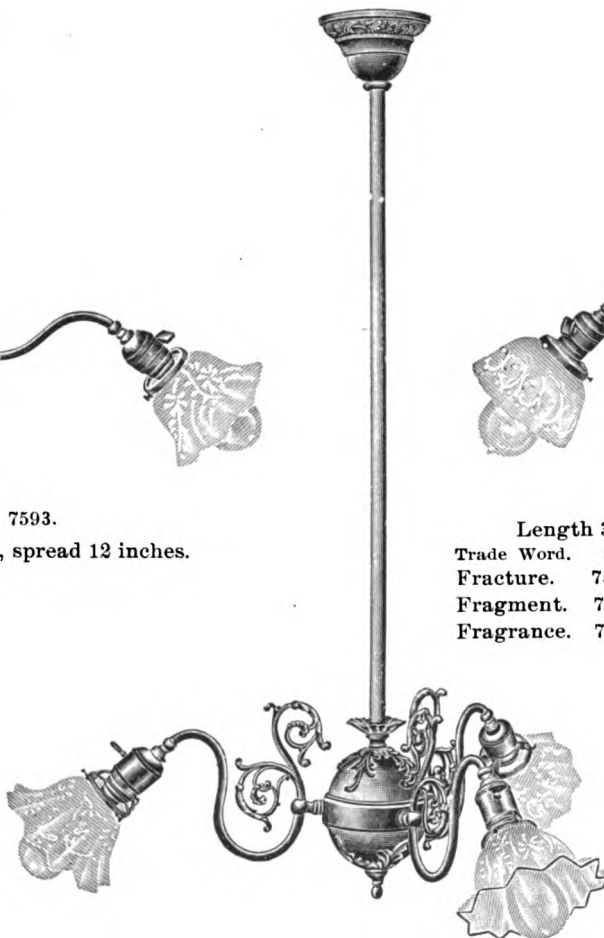
Length 36 inches, spread 12 inches.



No. 7590.

Length 36 inches, spread 9 inches.

| Trade Word. | No. | Price. |
|-------------|---------------------------|--------|
| Fracture. | 7590. 2 lights .....each, | \$5.00 |
| Fragment. | 7590. 3 " " | 5.50 |
| Fragrance. | 7590. 4 " " | 6.50 |



No. 7595.

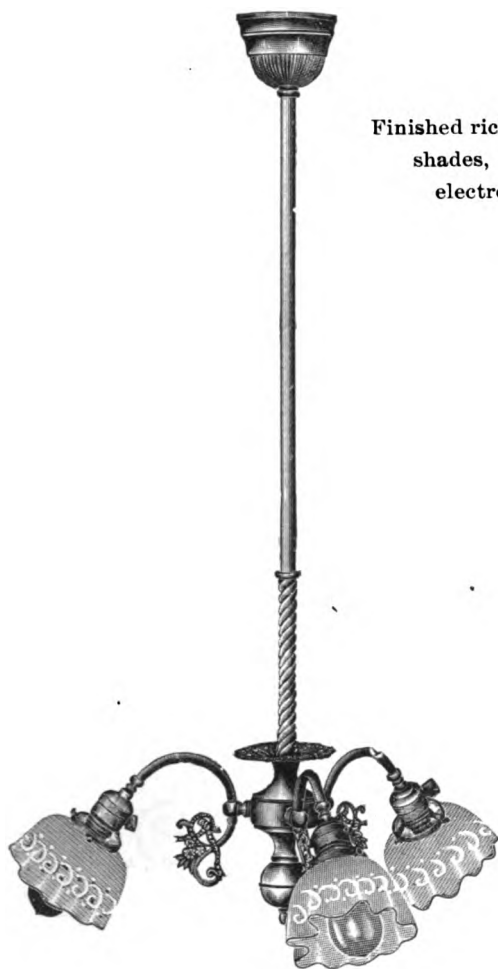
Length 36 inches, spread 18 inches.

| Trade Word. | No. | Price. |
|-------------|---------------------------|--------|
| Fraillest. | 7595. 2 lights .....each, | \$6.00 |
| Frailty. | 7595. 3 " " | 8.00 |
| Frame. | 7595. 4 " " | 9.00 |

INCANDESCENT LIGHT SUPPLIES. ,

ELECTROLIERS.

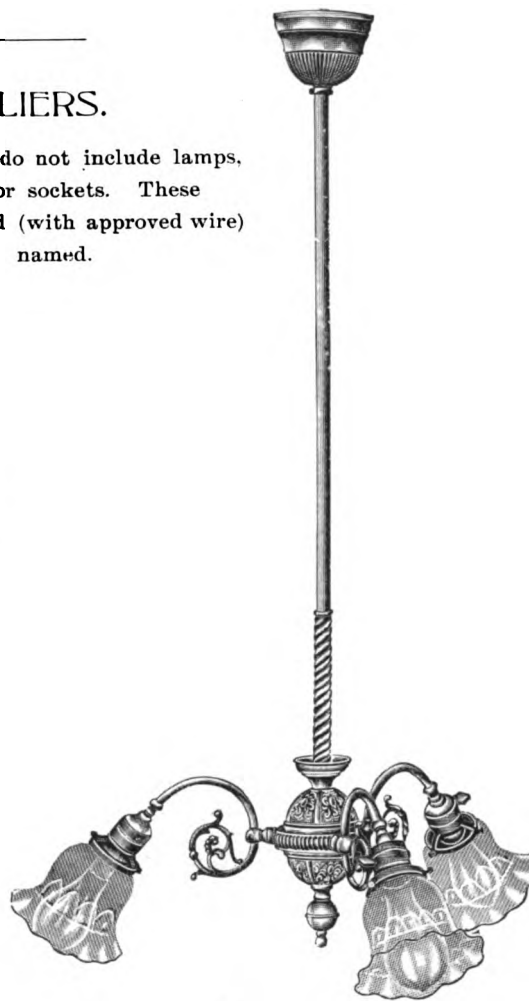
Finished rich gilt. Prices do not include lamps, shades, shade holders or sockets. These electroliers are wired (with approved wire) at the prices named.



No. 7597.

Length 36 inches, spread 15 inches.

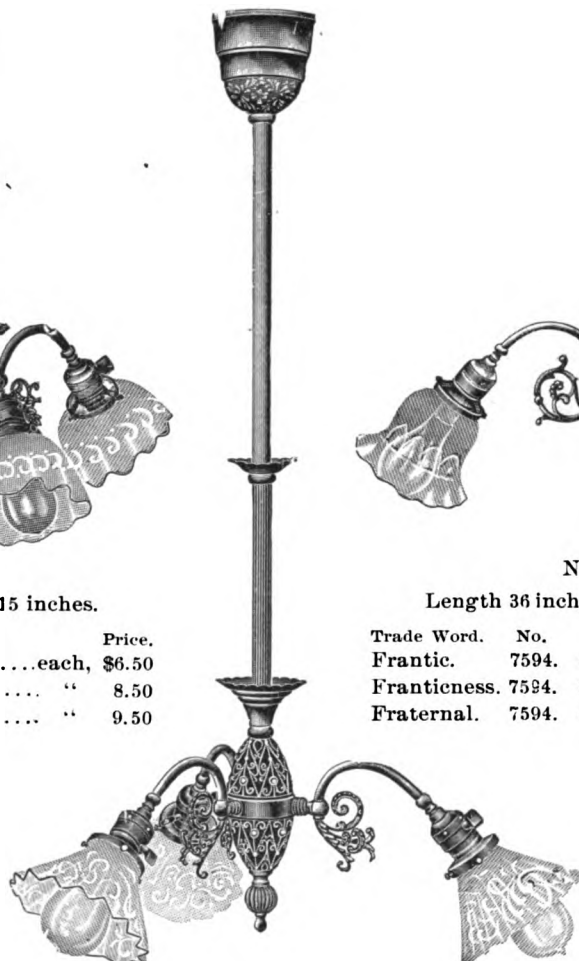
| Trade Word. | No. | | Price. |
|-------------|-------|--------------------|--------|
| Framing. | 7597. | 2 lights.....each, | \$6.50 |
| Frankly. | 7597. | 3 " | 8.50 |
| Frankness. | 7597. | 4 " | 9.50 |



No. 7594.

Length 36 inches, spread 14 inches.

| Trade Word. | No. | | Price. |
|--------------|-------|--------------------|---------|
| Frantic. | 7594. | 2 lights.....each, | \$ 7.00 |
| Franticness. | 7594. | 3 " | 9.00 |
| Fraternal. | 7594. | 4 " | 10 00 |



No. 7588.

Length 36 inches, spread 15 inches.

| Trade Word. | No. | | Price. |
|-------------|-------|--------------------|---------|
| Fraternity. | 7588. | 2 lights.....each, | \$ 8.00 |
| Fraternize. | 7588. | 3 " | 10.00 |
| Fratricide. | 7588. | 4 " | 11 00 |

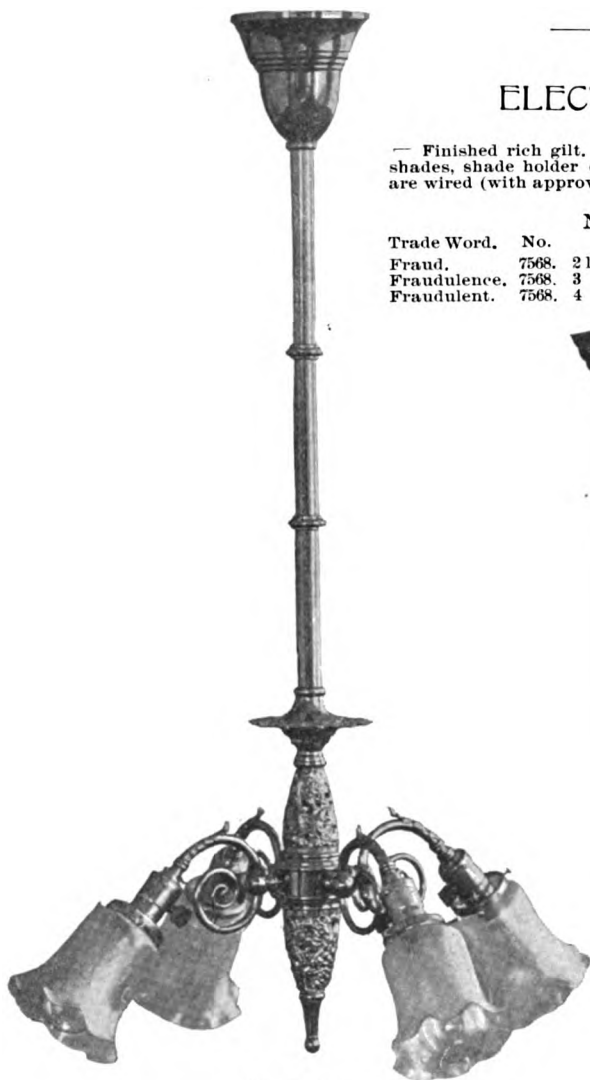
INCANDESCENT LIGHT SUPPLIES.

ELECTROLIERS.

— Finished rich gilt. Prices do not include lamps, shades, shade holder or sockets. These Electroliers are wired (with approved wire) at the prices named.

No. 7568.

| Trade Word. | No. | | Price. |
|--------------|-------|---------------|---------------|
| Fraud. | 7568. | 2 lights..... | each, \$ 9.50 |
| Fraudulence. | 7568. | 3 " | " 12.00 |
| Fraudulent. | 7568. | 4 " | " 14.50 |



No. 7561.

Length 36 inches, spread 13 inches.

| Trade Word. | No. | | Price. |
|-------------|-------|----------------|---------------|
| Fraught. | 7561. | 2 lights | each, \$12.00 |
| Fray. | 7561. | 3 " | " 15.00 |
| Freak. | 7561. | 4 " | " 18.00 |



No. 7571.

Length 36 inches, spread 16 inches.

| Trade Word. | No. | | Price. |
|-------------|-------|---------------|---------------|
| Freakish. | 7571. | 2 lights..... | each, \$10.50 |
| Freckle. | 7571. | 3 " | " 13.50 |
| Freeborn. | 7571. | 4 " | " 17.50 |



No. 7568.

Length 36 inches, spread 16 inches.

INCANDESCENT LIGHT SUPPLIES.

ELECTROLIERS.

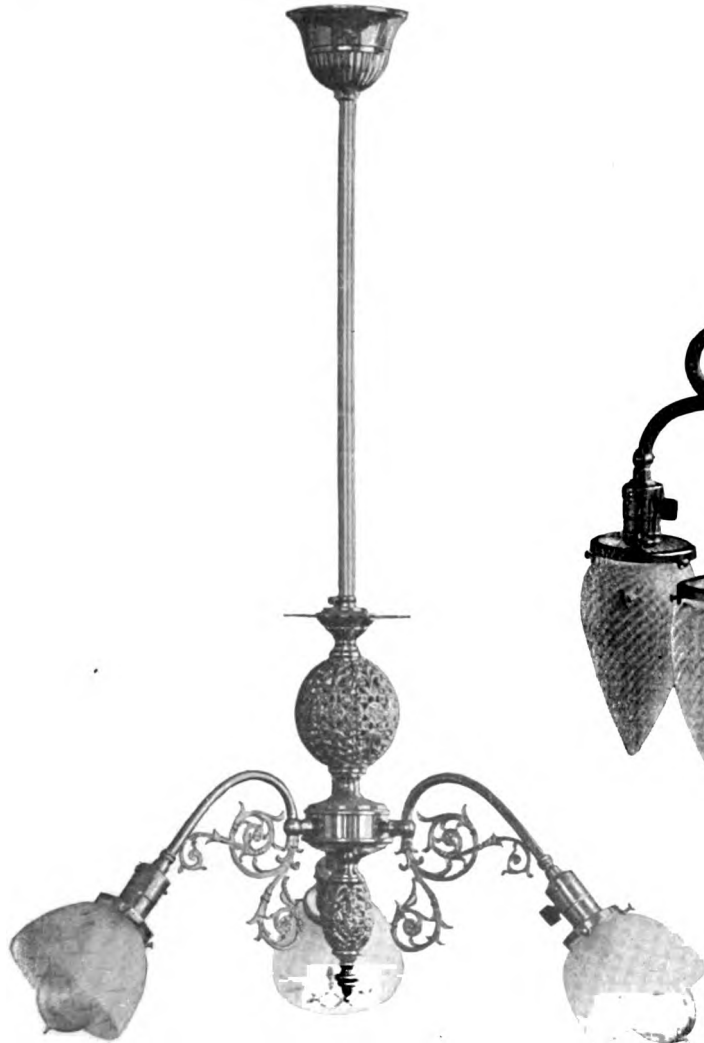
Finished rich gilt. Prices include glassware as shown, except on No. 7560, but no electric holders, sockets or lamps. These Electroliers are wired (with approved wire) at the prices named.

No. 7560.

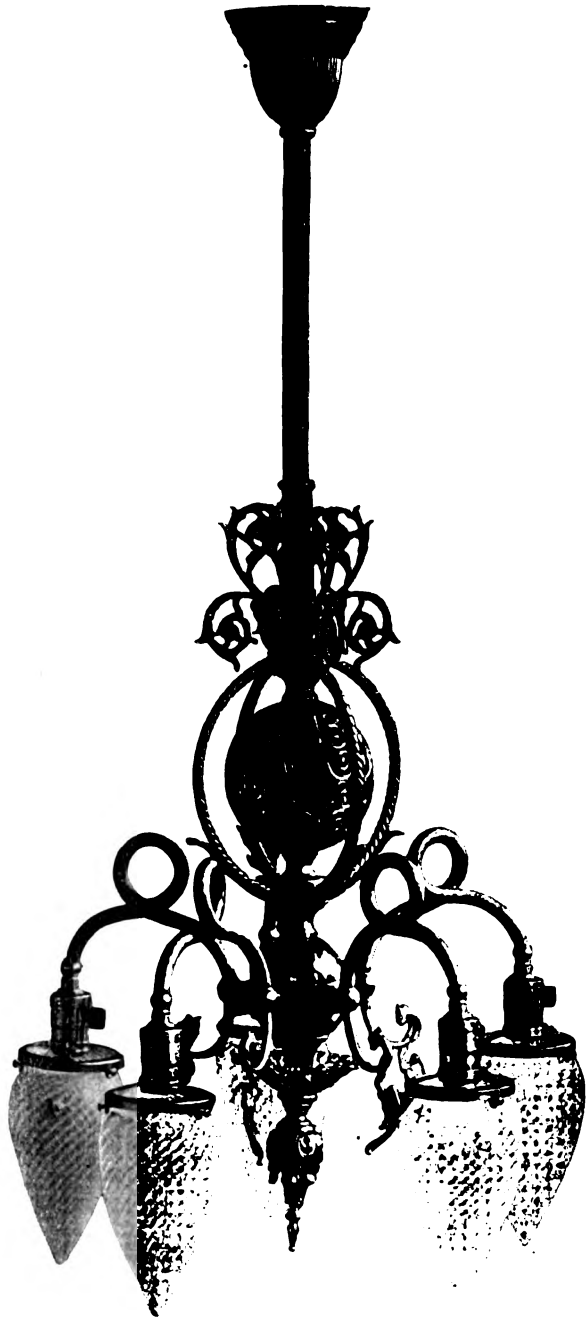
| Trade Word. | No. | | Price. |
|-------------|-------|----------------|---------------|
| Freedman. | 7560. | 2 lights | each, \$13.00 |
| Freely. | 7560. | 3 " | " 16.50 |
| Freeness. | 7560. | 4 " | " 20.00 |

No. 7585.

| Trade Word. | No. | | Price. |
|-------------|-------|----------------|---------------|
| Freestone. | 7585. | 2 lights | each, \$55.00 |
| Freewill. | 7585. | 3 " | " 60.00 |
| Freeze. | 7585. | 4 " | " 65.00 |
| Frenchy. | 7585. | 5 " | " 75.00 |
| Frequenter. | 7585. | 6 " | " 80.00 |
| Fresco. | 7585. | 8 " | " 90.00 |



No. 7560.
Length 36 inches, spread 16 inches.



No. 7585.
Length 36 inches,
spread 20 inches.

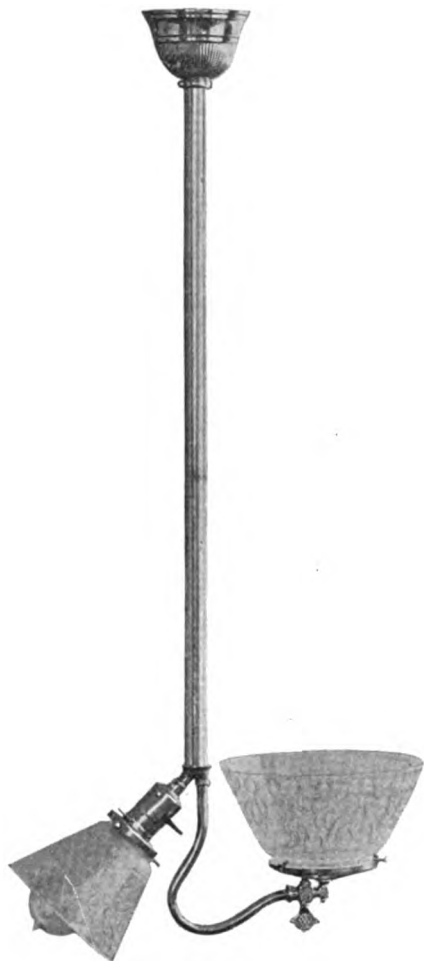
INCANDESCENT LIGHT SUPPLIES.

COMBINATION HALL LIGHTS.

Finished rich gilt. Prices include glassware as shown, except on No. 8103, but no electric holders, sockets or lamps. Prices include wiring (with approved wire) and insulating joints.

| | | |
|-------------|------------------------------|-------------|
| | No. 8103. | |
| Trade Word. | No. | Price Each. |
| Frescoed. | 8103. 1 gas, 1 electric..... | \$3.50 |

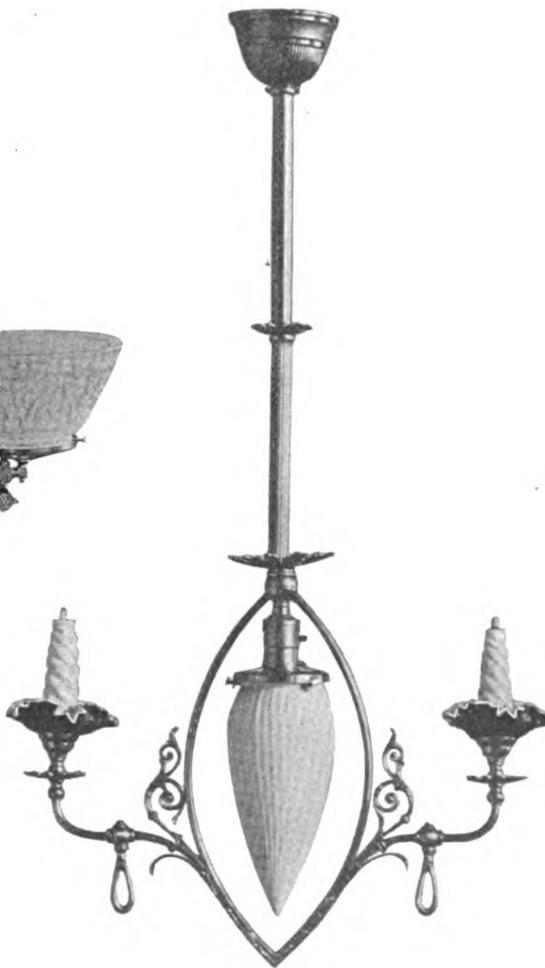
| | | |
|-------------|------------------------------|-------------|
| | No. 8087. | |
| Trade Word. | No. | Price Each. |
| Frescoing. | 8087. 1 gas, 1 electric..... | \$7.00 |



No. 8103.
Length 36 inches, spread 9 inches.



No. 8087.
Length 36 inches, spread 11 inches.



No. 8086.
Length 36 inches, spread 17 inches.
Trade Word. No.
Fresher. 8086. 2 gas, 1 electric.....each, \$18.00

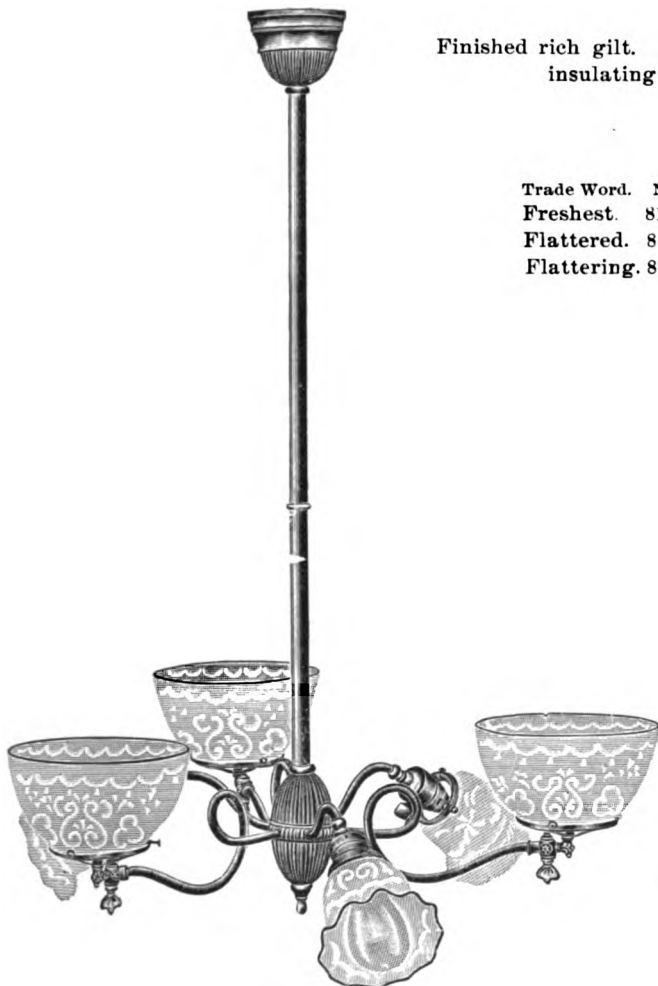
INCANDESCENT LIGHT SUPPLIES.

COMBINATION ELECTROLIERS.

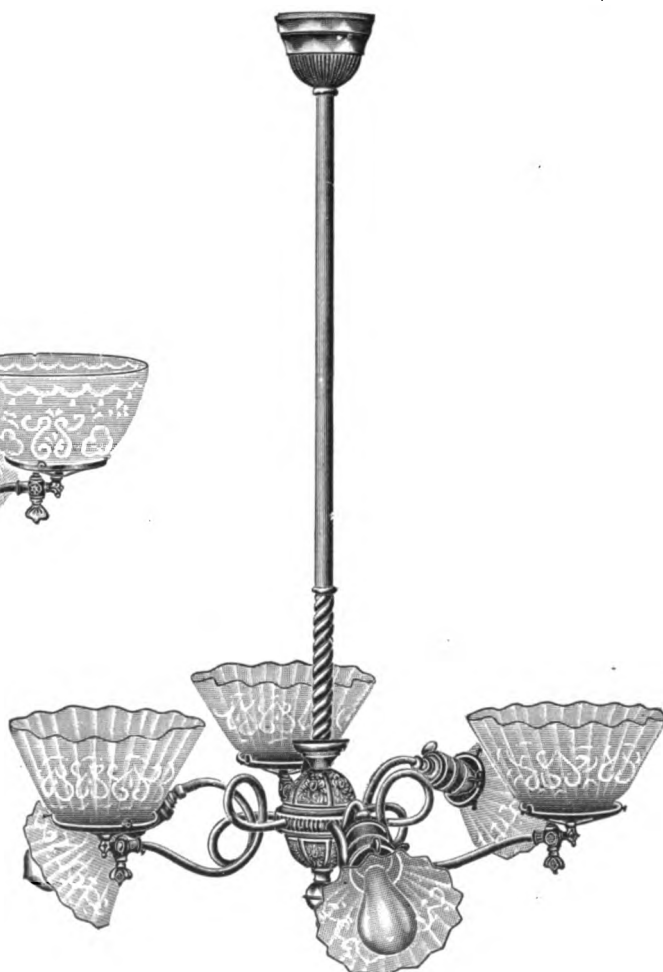
Finished rich gilt. Prices include wiring (with approved wire) and insulating joint, but no electric holders, lamps, sockets or shades.

No. 8117.

| Trade Word. | No. | | | | Price. |
|-------------|-------|--------|-----------------|---------|--------|
| Freshest. | 8117. | 2 gas, | 2 electric..... | each, | \$5.50 |
| Flattered. | 8117. | 3 " | 3 " | " | 7.00 |
| Flattering. | 8117. | 4 " | 4 " | " | 8.50 |



No. 8117.
Length 36 inches, spread 21 inches.



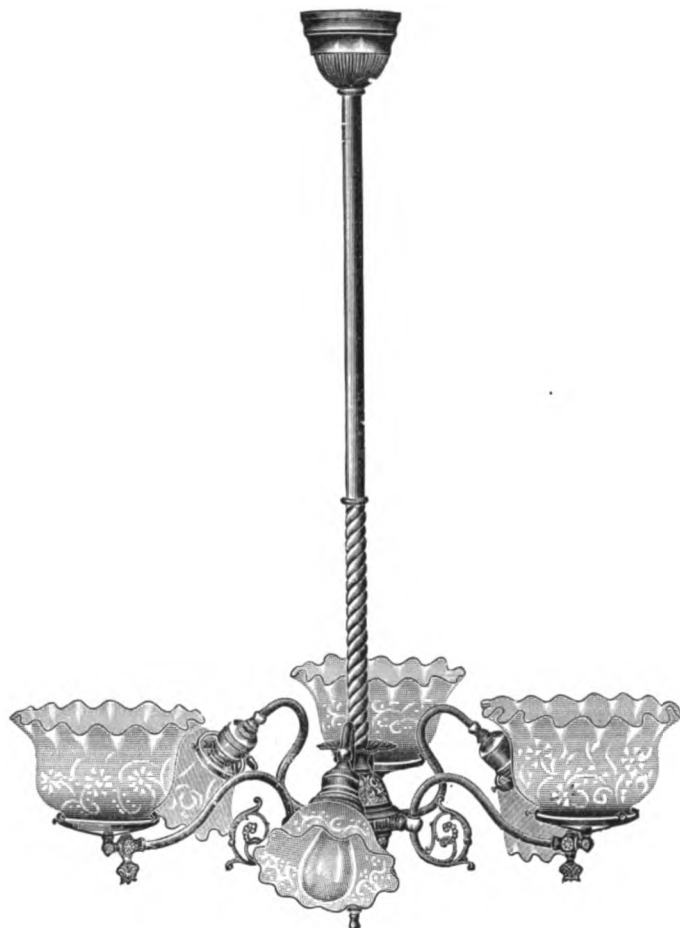
No. 8120.
Length 36 inches, spread 21 inches.

No. 8120.

| Trade Word. | No. | | | | Price. |
|-------------|-------|--------|-------------------|--|--------|
| Flatterer. | 8120. | 2 gas, | 2 electric, each, | | \$6.00 |
| Flattery. | 8120. | 3 " | 3 " | | 7.50 |
| Flatulence. | 8120. | 4 " | 4 " | | 9.00 |

INCANDESCENT LIGHT SUPPLIES.

COMBINATION ELECTROLIERS.



No. 8115.

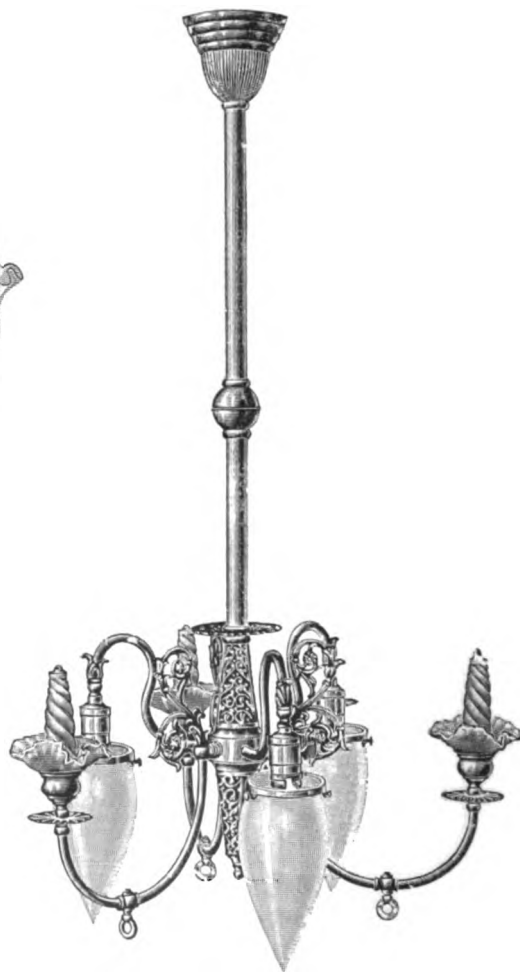
Length 36 inches, spread 21 inches.

Finished rich gilt. Prices include wiring (with approved wire) insulating joints, and glassware as shown, except on No. 8115. No electric holders, sockets or lamps included.

No. 8115.

| Trade Word. | No | Price. |
|-------------|----------------------------------|---------|
| Flatulent. | 8115. 2 gas, 2 electric... each, | \$ 7.50 |
| Flaunt. | 8115. 3 " 3 " " " | 9 00 |
| Flaunting. | 8115. 4 " 4 " " " | 10 50 |

| No. 8122. | | | |
|-------------|-------|-----------------------------|---------|
| Trade Word. | No. | | Price. |
| Flavor. | 8122. | 2 gas, 2 electric ... each, | \$15.00 |
| Flavoring. | 8122. | 3 " 3 " " | 19.00 |
| Flavorance. | 8122. | 4 " 4 " " | 24 00 |



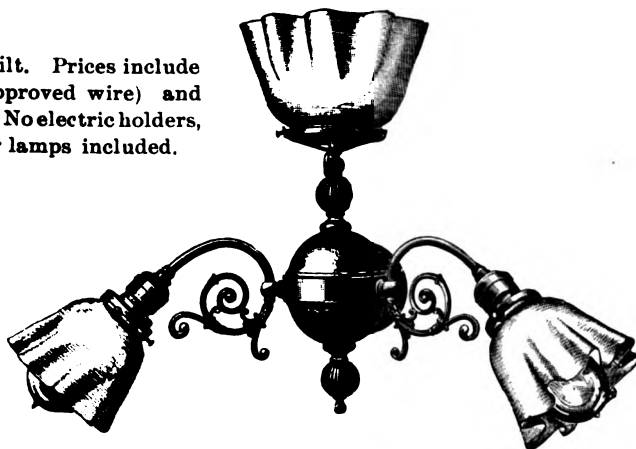
No. 8122.

Length 36 inches, spread 22 inches.

INCANDESCENT LIGHT SUPPLIES.

COMBINATION ELECTROLIERS AND BRACKETS.

Finished rich gilt. Prices include wiring (with approved wire) and insulating joint. No electric holders, shades, sockets or lamps included.



No. 84.

Combination Bracket.

Extends 13 inches, spread 22 inches.

| Trade Word. | No. | Price. |
|-------------|----------|--------|
| Flaw. | 84. Each | \$7.50 |



No. 8119.

Length 36 inches, spread 21 inches.

| Trade Word. | No. | | Price. |
|-------------|-------|-----------------------------|--------|
| Flax. | 8119. | 2 gas, 2 electric.....each, | \$6.50 |
| Flaxen. | 8119. | 3 " 3 " | 8 00 |
| Flaxseed. | 8119. | 4 " 4 " | 9.50 |



No. 8116.

Length 36 inches, spread 22 inches.

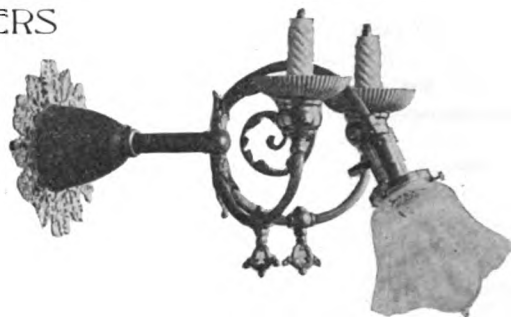
No. 8116.

| Trade Word. | No. | | Price. |
|-------------|-------|----------------------------|---------|
| Flaxy. | 8116. | 2 gas, 2 electric....each, | \$ 7.00 |
| Flay. | 8116. | 3 " 3 " " | 8.50 |
| Flea. | 8116. | 4 " 4 " " | 10.00 |

INCANDESCENT LIGHT SUPPLIES.

COMBINATION ELECTROLIERS AND BRACKETS.

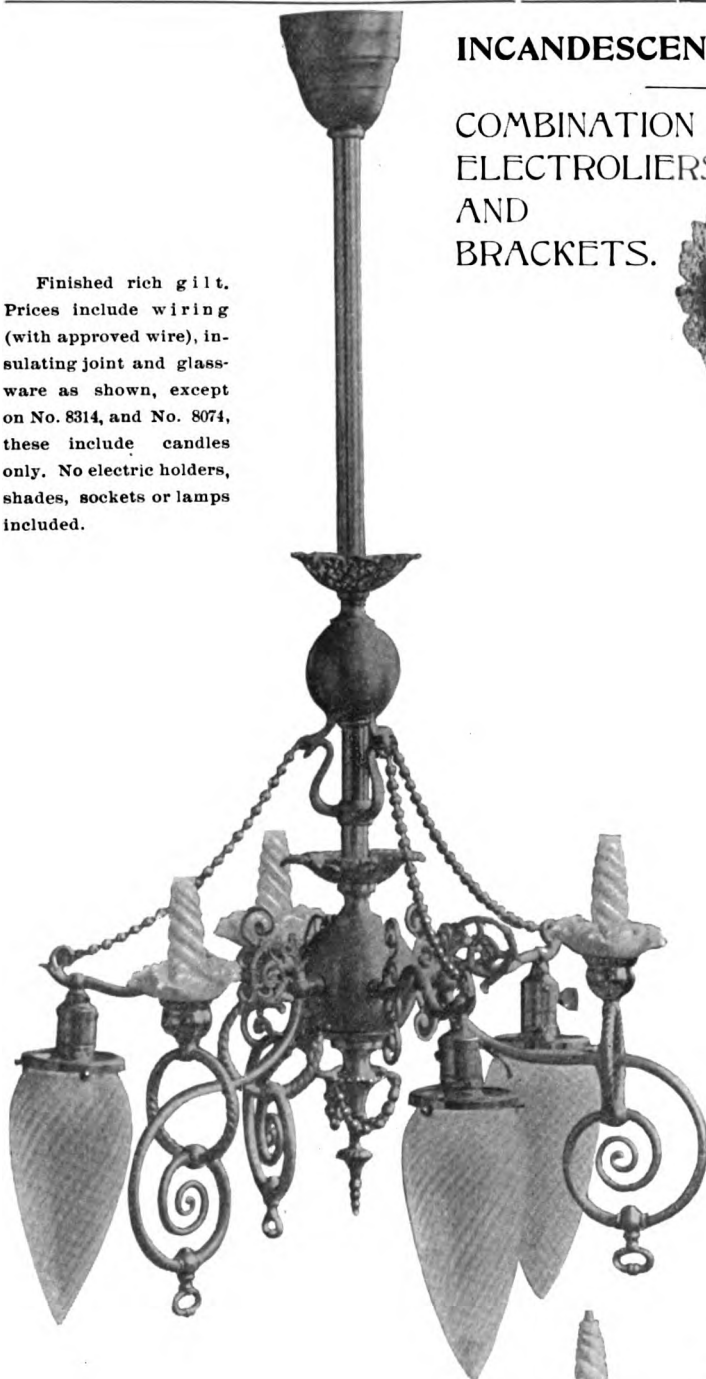
Finished rich gilt.
Prices include wiring
(with approved wire), in-
sulating joint and glass-
ware as shown, except
on No. 8314, and No. 8074,
these include candles
only. No electric holders,
shades, sockets or lamps
included.



No. 8314.

Extend 10 inches,
Spread 8 inches.

| Trade | Word. | No. | Price. |
|--------|-------|----------------------|---------------|
| Fleck. | 8314. | 2 gas, 1 electric | each, \$12.00 |



No. 8090.

Length 36 inches, spread 24 inches.

| Trade Word. | No. | Price. |
|-------------|----------------------------------|---------|
| Fleecy. | 8090. 2 gas, 2 electric....each, | \$45.00 |
| Fleer. | 8090. 3 " 3 " " | 55.00 |
| Fleeling. | 8090. 4 " 4 " " | 65.00 |
| Fleet. | 8090. 5 " 5 " " | 75.00 |



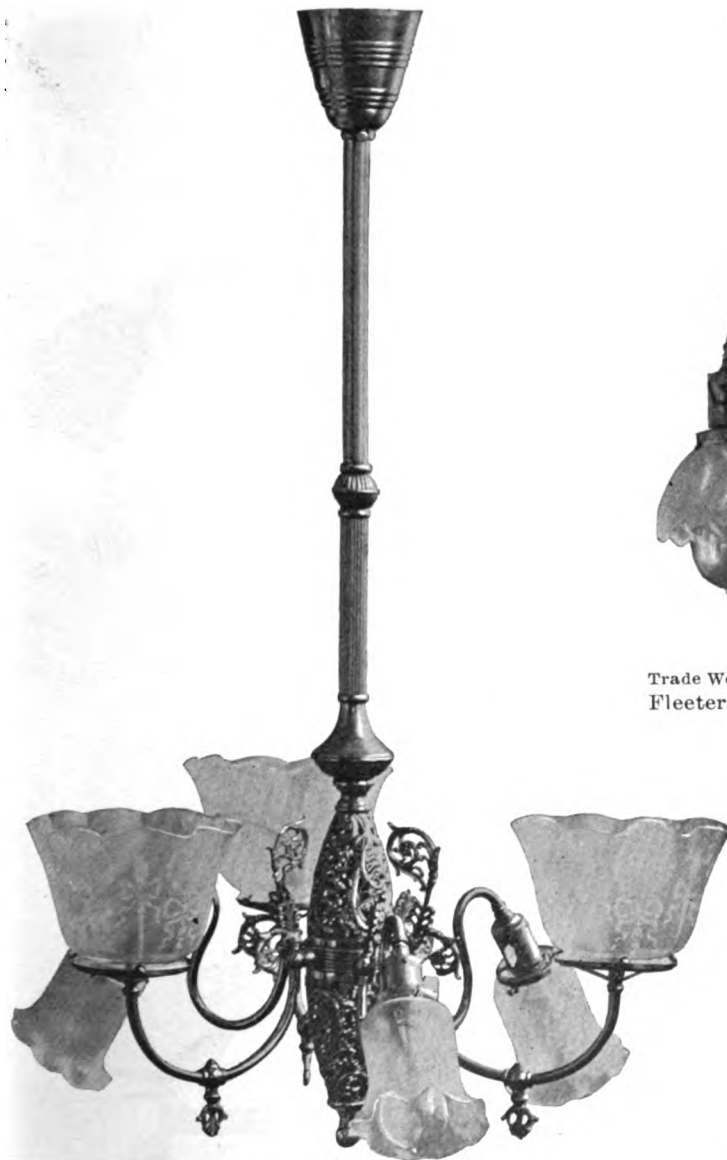
No. 8074.

Length 36 inches, spread 20 inches.

INCANDESCENT LIGHT SUPPLIES.

COMBINATION ELECTROLIER AND BRACKETS.

Finished rich gilt. Prices include wiring (with approved wire) and insulating joint. No electric holders, shades, sockets or lamps included.



No. 8058.

Length 36 inches, spread 18 inches.

| Trade Word. | No. | | | | Price. |
|-------------|-------|---|--------|--------------------|---------|
| Fleetest. | 8058. | 2 | gas, 2 | electric.....each, | \$16.00 |
| Fleeting. | 8058. | 3 | " 3 " | " | 22.00 |
| Fleetly. | 8058. | 4 | " 4 " | " | 26.00 |



No. 8304.

Extends 8 inches, spread 12 inches.

| Trade Word. | No. | | Price. |
|-------------|-------|----------------------------|---------|
| Fleeter. | 8304. | 1 gas, 2 electric ...each, | \$11.00 |



No. 73.

Extends 16 inches.

| Trade Word. | No. | | Price. |
|-------------|-----|------------|--------|
| Fleetness. | 73. |each, | \$3.00 |

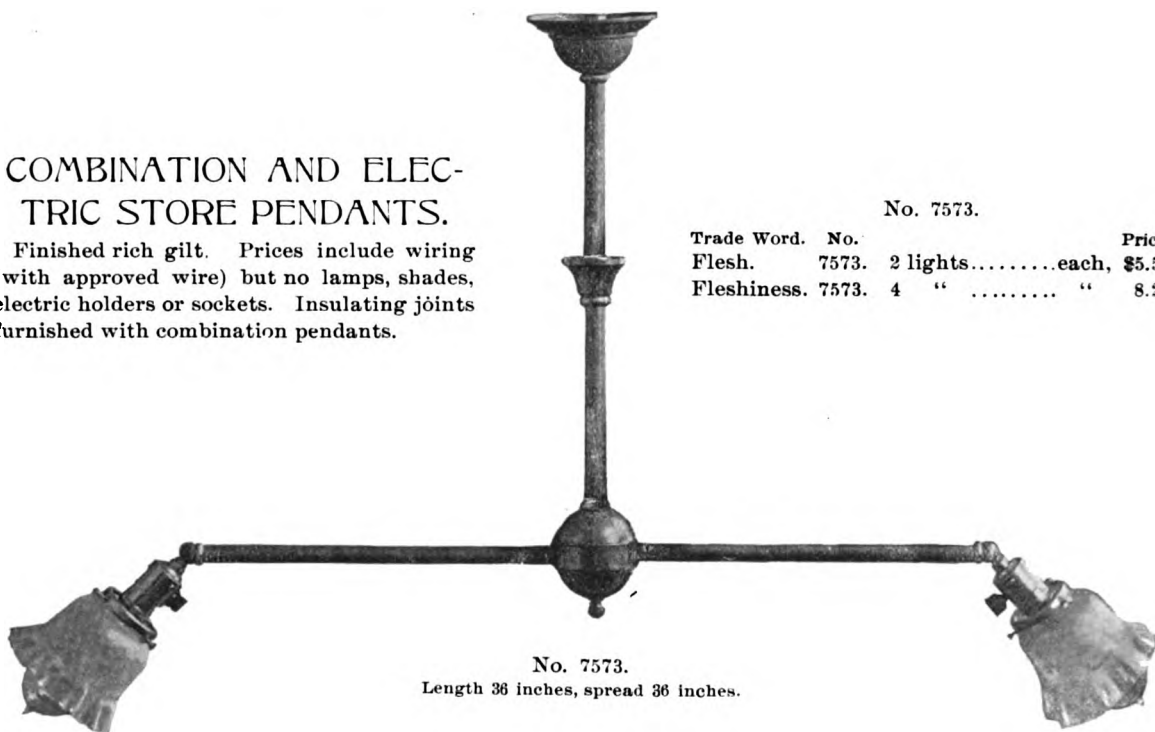
INCANDESCENT LIGHT SUPPLIES.

COMBINATION AND ELECTRIC STORE PENDANTS.

Finished rich gilt. Prices include wiring (with approved wire) but no lamps, shades, electric holders or sockets. Insulating joints furnished with combination pendants.

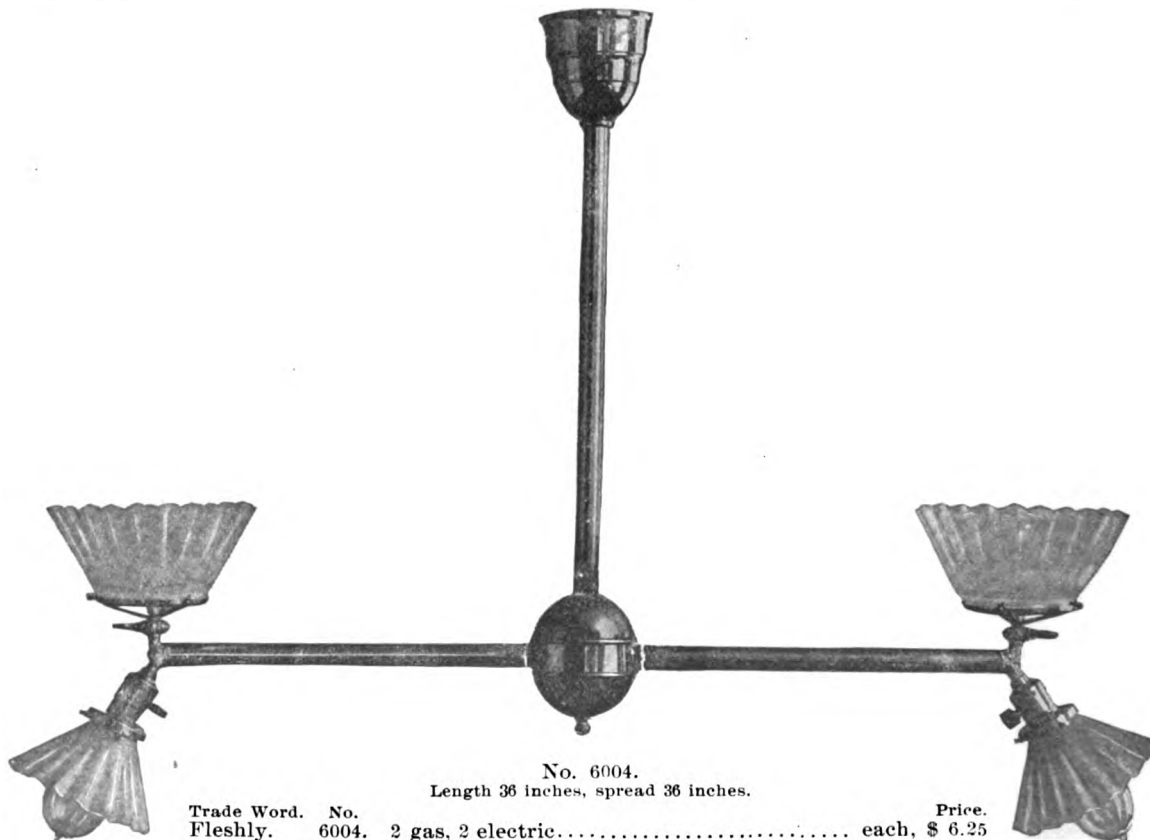
No. 7573.

| Trade Word. | No. | Price. |
|-------------|---------------------|--------------|
| Flesh. | 7573. 2 lights..... | each, \$5.50 |
| Fleshiness. | 7573. 4 " | " 8.25 |



No. 7573.

Length 36 inches, spread 36 inches.



No. 6004.

Length 36 inches, spread 36 inches.

| Trade Word. | No. | Price. |
|--------------|------------------------------|---------------|
| Fleshly. | 6004. 2 gas, 2 electric..... | each, \$ 6.25 |
| Flew. | 6004. 4 " 4 " | 11.00 |
| Flexibility. | 6004. 6 " 6 " | 15.00 |

INCANDESCENT LIGHT SUPPLIES.

BILLIARD PENDANTS.

Finished rich gilt. Prices do not include lamps, shades, sockets or wiring. Insulating joint is included in price of combination pendant,

No. 211.

Gas and Electric Combination.

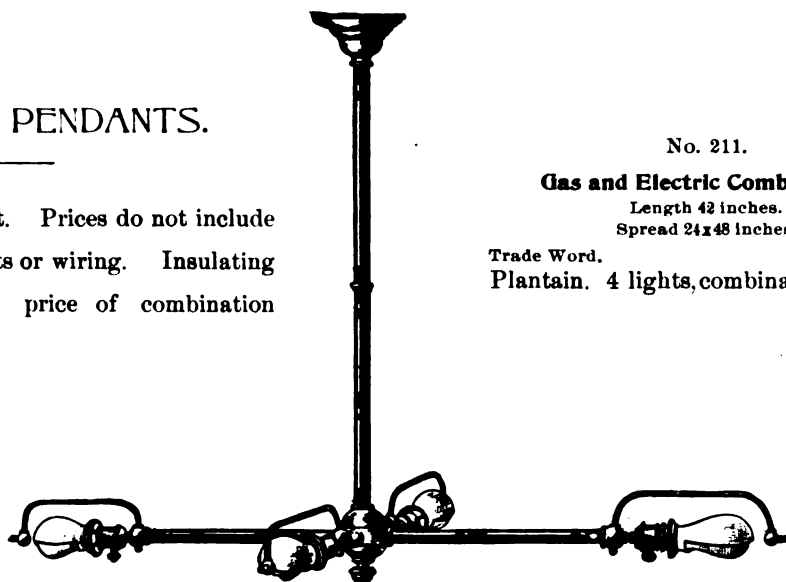
Length 42 inches.

Spread 24x48 inches.

Trade Word.

Price.

Plantain. 4 lights, combination, \$13.00



No. 211.

No. 209.

Length 42 inches.

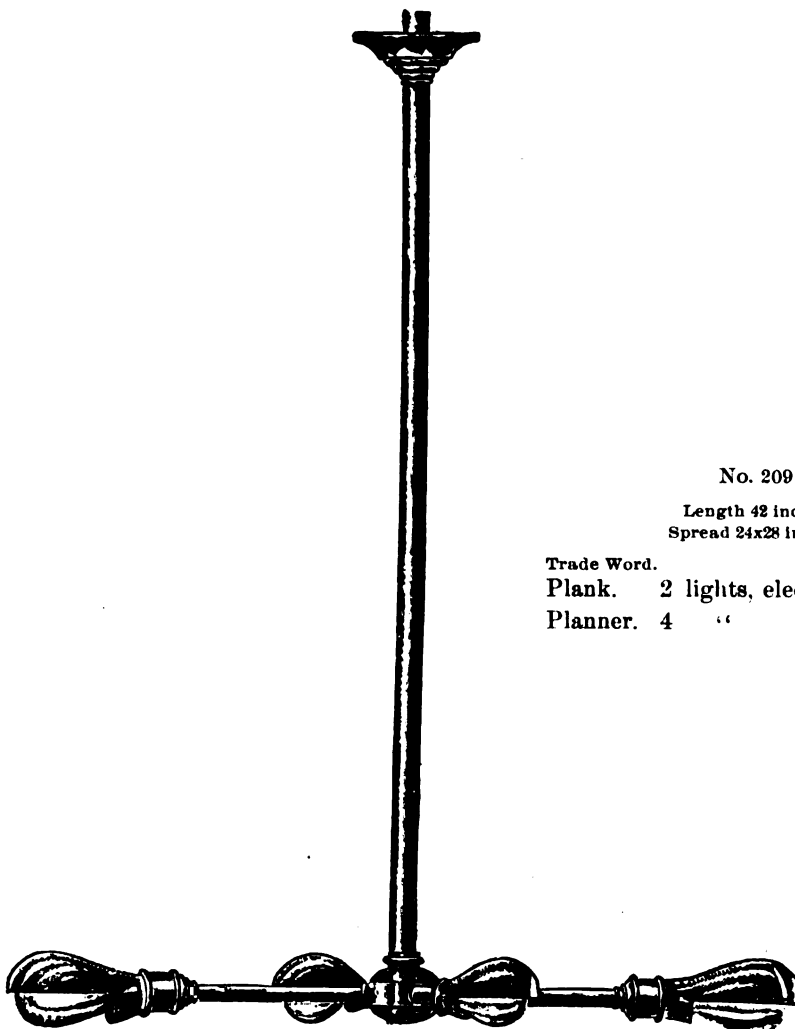
Spread 24x28 inches.

Trade Word.

Price.

Plank. 2 lights, electric.....\$3.50

Planner. 4 " " 5.00



No. 209.

INCANDESCENT LIGHT SUPPLIES.

OPAL SHADES.



Flat Opal.

No. 255.

| Trade Word. | Diameter. | Holder. | Price. |
|-------------|-----------|---------------------------|---------|
| Plausible. | 6 inches. | 2 1/4 inches....per doz., | \$ 1.75 |
| Player. | 8 " | 2 1/4 " " " " | 2.10 |
| Playful. | 10 " | 2 1/4 " " " " | 2.50 |
| Playfully. | 12 " | 2 1/4 " " " " | 4.50 |
| Playmate. | 14 " | 3 1/4 " " " " | 5.50 |
| Plea. | 16 " | 3 1/4 " " " " | 8.00 |
| Pleader. | 18 " | 3 1/4 " " " " | 10 00 |
| Pleasant. | 20 " | 3 1/4 " " " " | 15.00 |
| Pleasantly. | 24 " | 3 1/4 " " " " | 30.00 |



Fluted Opal.

No. 4251.

| Trade Word. | Diameter. | Holder. | Price. |
|--------------|-----------|---------------------------|--------|
| Please. | 6 inches. | 2 1/4 inches....per doz., | \$1.75 |
| Pleasing. | 8 " | 2 1/4 " " " " | 2.00 |
| Pleasurable. | 10 " | 2 1/4 " " " " | 2.40 |
| Pleasure. | 12 " | 2 1/4 " " " " | 4.20 |



No. 256.

| Trade Word. | Diameter. | Holder. | Price. |
|-------------|-----------|---------------------------|--------|
| Pleiad. | 6 inches. | 2 1/4 inches... per doz., | \$1.75 |
| Plenary. | 8 " | 2 1/4 " " " " | 2.00 |
| Plenitude. | 10 " | 2 1/4 " " " " | 3.00 |

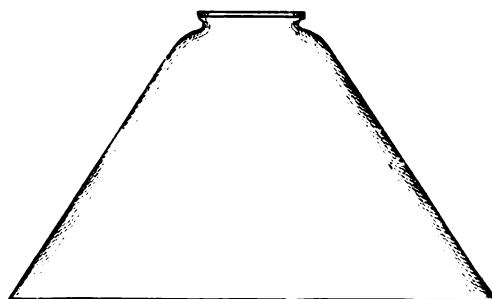
Flashed Cone Shades, Green Outside, White Porcelain Inside.



Fluted Opal—Deep Cone.

No. 4184.

| Trade Word. | Diameter. | Holder. | Price. |
|-------------|-----------|---------------------------|--------|
| Pledge. | 6 inches. | 2 1/4 inches....per doz., | \$1.75 |
| Pledger. | 8 " | 2 1/4 " " " " | 2.00 |
| Pledget. | 10 " | 2 1/4 " " " " | 3.00 |



No. E-67.

| Trade Word. | Diameter. | Holder. | Price. |
|-------------|-----------|---------------------------|---------|
| Plenteous. | 7 inches. | 2 1/4 inches....per doz., | \$ 7.00 |
| Plentiful. | 10 " | 2 1/4 " " " " | 12.00 |



No. 254.

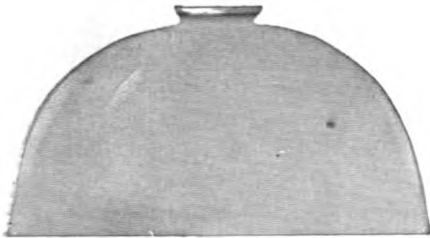
| Trade Word. | Diameter. | Holder. | Price. |
|-------------|-----------|---------------------------|--------|
| Pleonasm. | 6 inches. | 2 1/4 inches....per doz., | \$1.75 |
| Plema. | 8 " | 2 1/4 " " " " | 2.00 |

White Porcelain Cone Shades as Above.

| Trade Word. | Diameter. | Holder. | Price. |
|-------------|-----------|---------------------------|--------|
| Pleurisy. | 8 inches. | 2 1/4 inches....per doz., | \$2.75 |
| Fleuritic. | 10 " | 2 1/4 " " " " | 3.50 |

INCANDESCENT LIGHT SUPPLIES.

OPAL SHADES--CONTINUED.

**Opal.**

No. 6000.

4½ inches high, 2¼ or 3¼ inch holder.

| Trade Word. | | Price. |
|-------------|------------------------|--------|
| Poplitic. | 6 inches.....per doz., | \$3.00 |
| Populace. | 8 " | 3.50 |
| Popular. | 10 " | 4.50 |

**Snowball.**

No. 3487½.

6 inches high, 5 inch diameter, 3¼ inch holder.

| Trade Word. | Price. |
|-------------|-----------------------|
| Popularity. |per doz., \$4.50 |

**Melon Opal.**

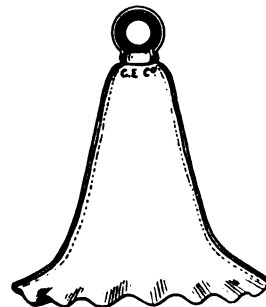
No. 3801½.

5½ inches high, 4½ inch diameter, 2¼ inch holder.

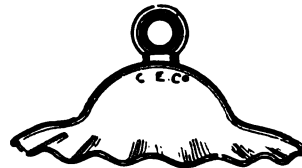
| Trade Word. | Price. |
|-------------|-----------------------|
| Popularize. |per doz., \$4.50 |

**Ring Top Cone.**

| Trade Word. | Price. |
|-------------|---------------------------------------|
| Populate. | 10 inch diameter.....per doz., \$4.50 |

**Smoke Bell.**

| Trade Word. | Price. |
|-------------|-------------------------------------|
| Population. | 4 inch diameter....per doz., \$2.00 |
| Populous. | 5 " " " 3.00 |
| Porch. | 6 " " " 3.00 |
| Porcine. | 7 " " " 3.50 |

**Smoke Shade.**

| Trade Word. | Price. |
|-------------|--------------------------------------|
| Porcupine. | 5 inch diameter.....per doz., \$3.00 |
| Pore. | 6 " " " 3.00 |
| Porism. | 7 " " " 3.00 |
| Porker. | 8 " " " 3.50 |
| Porosity. | 10 " " " 4.50 |

INCANDESCENT LIGHT SUPPLIES.

INCANDESCENT SHADES.

White, Acid Etched.



No. 1032.

3 inches high, 6 inch diameter, 2¼ inch holder.

| | | |
|-------------|--------------|--------|
| Trade Word. | | Price |
| Pleable. | Per doz..... | \$3.50 |



No. 1022.

4 inches high, 5¼ inch diameter, 2¼ inch holder.

| | | |
|-------------|--------------|--------|
| Trade Word. | | Price. |
| Pliancy. | Per doz..... | \$5.50 |



No. 1029.

4 inches high, 4¾ inch diameter, 2¼ inch holder.

| | | |
|-------------|------------|--------|
| Trade Word. | | Price. |
| Pliant. | Per doz... | \$6.00 |



No. 1004.

5 inches high, 4¼ inch diameter, 2¼ inch holder.

| | | |
|-------------|--------------|--------|
| Trade Word. | | Price. |
| Pliantness. | Per doz..... | \$5.00 |



No. 1021.

Cut Edge.

4¾ inches deep, 4¾ inch diameter, 2¼ inch holder.

| | | |
|-------------|--------------|--------|
| Trade Word. | | Price. |
| Plicate. | Per doz..... | \$6.50 |



No. 90.

5¼ inches high, 5¾ inch diameter, 3¼ inch holder.

| | | |
|-------------|----------------------------|---------|
| Trade Word. | | Price. |
| Plight. | Frosted only.....per doz., | \$ 6.00 |
| Plighter. | " and cut stars | 12.00 |

INCANDESCENT LIGHT SUPPLIES.

We make no allowance for breakage on glassware, as we exercise the utmost care in packing, and all goods are shipped at the purchaser's risk.

INCANDESCENT SHADES.

Acid Etched, Crimped.



No. 5990½.

6 inch diameter, 4½ inches high, 2¼ inch holder.

| | | |
|-------------|---------------|--------|
| Trade Word. | | Price. |
| Oppose. | Per doz. | \$3.50 |

Acid Etched, Fluted.



No. 6427½.

4 inch diameter, 4½ inches high, 2¼ inch holder.

| | | |
|-------------|---------------|--------|
| Trade Word. | | Price. |
| Plocene. | Per doz. | \$4.00 |

Acid Etched, Plain Top.



No. 6616½.

4 inch diameter, 4½ inches high, 2¼ inch holder.

| | | |
|-------------|---------------|--------|
| Trade Word. | | Price. |
| Plodder. | Per doz. | \$3.25 |

Acid Etched, Crimped.



No. 5993½.

5½ inch diameter, 3½ inches high, 2¼ inch holder.

| | | |
|-------------|--------------------------------|--------|
| Trade Word. | | Price. |
| Plinth. | Per doz. | \$4.00 |
| Opposition. | With red edges. per doz., | 7.00 |
| Oppress. | " blue " " | 7.00 |
| Oppression. | " amber " " | 7.00 |

Acid Etched, Scalloped Top.



No. 6566½.

4 inch diameter, 4½ inches high, 2¼ inch holder.

| | | |
|-------------|---------------|--------|
| Trade Word. | | Price. |
| Plod. | Per doz. | \$4.00 |

Etched Melon.



No. 5109½.

3¼ inches high, 5 inch diameter, 2¼ inch holder.

| | | |
|-------------|-------------------------|---------|
| Trade Word. | | Price. |
| Plough. | Crystal. per doz., | \$13.00 |

INCANDESCENT LIGHT SUPPLIES.

INCANDESCENT SHADES.



No. 6043 1/2.

No. 6043 1/2.

Etched, Ribbed, Scalloped Top.

4 inch diameter, 4 1/4 inches high, 2 1/4 inch holder.

| Trade Word. | | Price. |
|-------------|--------------------------|---------|
| Plover. | Etched.....per doz., | \$ 6.00 |
| Pluck. | Light blue opalescent .. | 10.00 |
| Plougher. | Pink opalescent..... | 15.00 |
| Ploughman. | Orange " | 15.00 |



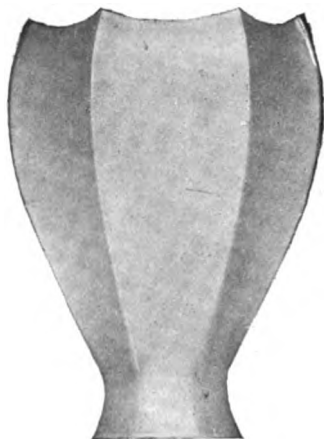
No. 6220 1/2.

No. 6220 1/2.

Etched, Fluted Top.

5 inch diameter, 4 1/4 inches high, 2 1/4 inch holder.

| Trade Word. | | Price. |
|-------------|--------------|--------|
| Plucky. | Per doz..... | \$5.63 |



No. 6513 1/2.

No. 6513 1/2.

Roughed Inside, Scalloped Top.

4 1/2 inch diameter, 6 inches high, 2 1/4 inch holder.

| Trade Word. | | Price. |
|-------------|--------------|--------|
| Plumbago | Per doz..... | \$8.75 |



No. 6238 1/2

No. 6238 1/2.

Ribbed, Roughed Inside, Scalloped Top.

4 1/4 inch diameter, 4 1/4 inches high, 2 1/4 inch holder.

| Trade Word. | | Price. |
|-------------|--------------|--------|
| Plumage. | Per doz..... | \$5.50 |



No. 6617 1/2.

No. 6631 1/2.

Roughed Pattern, Clear--Plain Top.

5 inch diameter, 4 1/2 inches high, 2 1/4 inch holder.

| Trade Word. | | Price. |
|-------------|--------------|--------|
| Plumbean. | Per doz..... | \$6.25 |



No. 6631 1/2.

No. 6617 1/2.

Roughed Pattern, Clear--Plain Top.

4 1/4 inch diameter, 4 1/2 inches high, 2 1/4 inch holder.

| Trade Word. | | Price. |
|-------------|--------------|---------|
| Plumber. | Per doz..... | \$4.00. |

INCANDESCENT LIGHT SUPPLIES.

INCANDESCENT SHADES.

Silver Etched, Scalloped Top.

No. 6461 $\frac{1}{2}$.

4 $\frac{1}{2}$ inch diameter, 5 inches high, 2 $\frac{1}{4}$ inch holder.

| | |
|-------------------------|---------|
| Trade Word. | Price. |
| Plumbing. Per doz | \$17.00 |



No. 6483 $\frac{1}{2}$.

Silver Line, Etched Electro.

No. 6483 $\frac{1}{2}$.

4 $\frac{1}{4}$ inch diameter, 4 $\frac{1}{4}$ inches high, 2 $\frac{1}{4}$ inch holder.

| | |
|----------------------|--------|
| Trade Word. | Price. |
| Plume. Per doz | \$8.00 |



No. 6461 $\frac{1}{2}$.

Electro Etched, Plain Top.

No. 6429 $\frac{1}{2}$.

4 inch diameter, 4 $\frac{1}{2}$ inches high, 2 $\frac{1}{4}$ inch holder.

| | |
|-------------------------|--------|
| Trade Word. | Price. |
| Plumiped. Per doz | \$5.50 |



No. 6475 $\frac{1}{2}$.

Electro Etched, Scalloped Top.

No. 6475 $\frac{1}{2}$.

4 inch diameter, 4 $\frac{1}{2}$ inches high, 2 $\frac{1}{4}$ inch holder.

| | |
|-----------------------|--------|
| Trade Word. | Price. |
| Plumet. Per doz | \$7.00 |



No. 6429 $\frac{1}{2}$.

Rich Cut, Scalloped Top.

No. 6388 $\frac{1}{2}$.

4 $\frac{1}{2}$ inch diameter, 4 $\frac{1}{2}$ inches high, 2 $\frac{1}{4}$ inch holder.

| | |
|------------------------|---------|
| Trade Word. | Price. |
| Plumase. Per doz | \$40.00 |



No. 6541 $\frac{1}{2}$.

Rich Cut, Scalloped Top.

No. 6541 $\frac{1}{2}$.

4 $\frac{1}{2}$ inch diameter, 4 $\frac{1}{4}$ inches high, 2 $\frac{1}{4}$ inch holder.

| | |
|----------------------|---------|
| Trade Word. | Price. |
| Plump. Per doz | \$22.50 |



No. 6388 $\frac{1}{2}$.

INCANDESCENT LIGHT SUPPLIES.

INCANDESCENT SHADES.

Melon Deep Scalloped.

4½ inch diameter, 5¼ inches high, 2¼ inch holder.

| Trade Word. | | Price. |
|-------------|-------------------------------|---------|
| Plumper. | Pink opalescent.....per doz., | \$15.00 |
| Plumply. | Orange "....." | 15.00 |
| Realism. | Straw "....." | 12.00 |
| Realistic. | Light blue opalescent....." | 12.00 |



No. 4161.



No. 6497½.

Filint Opalescent.

4 inches high, 7 inch diameter, 2¼ inch holder.

| Trade Word. | | Price. |
|-------------|--------------------------------------|---------|
| Plumpness. | Assorted tinted edges .....per doz., | \$12.00 |
| Plunder. | Opalescent, not tinted edges....." | 6.50 |

Twist Crimped Opalescent.

5 inch diameter, 4 inches high, 2¼ inch holder.

| Trade Word. | | Price. |
|-------------|-------------------------------|--------|
| Plunderer. | Pink opalescent.....per doz., | \$7.50 |
| Plunge. | Ruby "....." | 7.50 |
| Pluralist. | Flint "....." | 3.75 |
| Plurality. | Amber "....." | 3.75 |



No. 5823½.



No. 6373.

Rich Cut, Electric Bulb, Star Bottom.

| Trade Word. | | Price. |
|-------------|------------------|---------|
| Poetess. | 8 inch.....each, | \$ 7.00 |
| Poetical. | 10 "....." | 14.00 |
| Poetically. | 12½ "....." | 18.00 |
| Poetics. | 14 "....." | 28.00 |
| Poetize. | 16 "....." | 42.50 |
| Poetry. | 18 "....." | 70.00 |

Electro Etched Ball.

| Trade Word. | | Price. |
|-------------|----------------------|---------|
| Point. | 6 inch.....per doz., | \$16.00 |
| Pointed. | 7 "....." | 18.00 |
| Pointedly. | 8 "....." | 22.00 |
| Pointer. | 10 "....." | 36.00 |
| Pointless. | 12 "....." | 55.00 |
| Poise. | 14 "....." | 75.00 |



No. 6581.

INCANDESCENT LIGHT SUPPLIES.

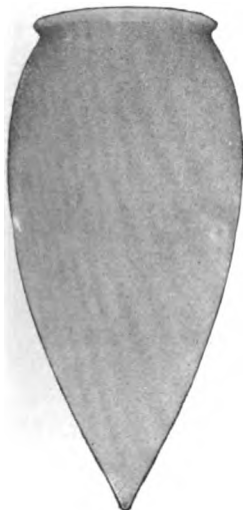
INCANDESCENT SHADES.



No. 6291.



No. 1006.



No. 6088.

No. 6430.

Stalactite electro etched.

4¼ in. diam., 8¼ in. long, 3¼ in. holder.

| | |
|-----------------------|---------|
| Trade Word. | Price. |
| Pluvius. Per doz..... | \$10.00 |

No. 6291.

Stalactite silver etched and rich cut.

3½ in. diam., 7¾ in. long, 3¼ in. holder.

| | |
|-----------------------|---------|
| Trade Word. | Price. |
| Pleuvial. Per doz.... | \$20.00 |

No. 1006.

Stalactite acid etched.

4½ in. diam., 6¾ in. long, 3¼ in. holder.

| | |
|-------------------------|--------|
| Trade Word. | Price. |
| Pneumatic. Per doz..... | \$6.00 |

No. 4557.

Stalactite clear glass.

4½ in. diam., 10 in. long, 3¼ in. holder.

| | |
|---------------------------|--------|
| Trade Word. | Price. |
| Pneumatical. Per doz..... | \$9.00 |

No. 6088.

Stalactites.

4 in. diam., 8¼ in. long, 3¼ in. holder.

| | |
|--------------------------------|---------|
| Trade Word. | Price. |
| Plurally. Plain..... per doz., | \$12.50 |
| Plush. Straw opalescent " | 12.50 |
| Plutonic. Alabaster.... " | 12.50 |

No. 5817.

Ball straw opalescent or alabaster.

| | |
|-------------------------------|----------|
| Trade Word. | Price. |
| Outmeasure. 6-inch, per doz., | \$ 10.00 |
| Outpost. 7 " " | 12.50 |
| Poach. 8 " " | 15.00 |
| Poacher. 10 " " | 22.50 |
| Pocket. 12 " " | 35.00 |
| Poem. 14 " " | 55.00 |
| Poetic. 16 " " | 105.00 |



No. 6430.



No. 4557.



No. 5817.

INCANDESCENT LIGHT SUPPLIES.

INCANDESCENT SHADES.

Diamond Electric Shade, Regular.



2½ inch holder, 4 inches high, 4½ inch diameter.

Trade Word.

Price.

Poisonous. Clear glass.....per doz., \$2.00

Ribbed No. 2 Crimp Shade.



2½ inch holder, 3 inches high, 6 inch diameter.

Trade Word.

Price.

Polarity. Frosted glass.....per doz., \$3.00

Diamond No. 2 Crimp Shade.



2½ inch holder, 3 inches high, 6 inch diameter.

Trade Word.

Price.

Poker. Clear glass.....per doz., \$2.50

Ribbed Regular.



2½ inch holder, 4 inches high, 4½ inch diameter.

Trade Word.

Price.

Polarize. Frosted glass.....per doz., \$2.75

Pressed Prism Clear Glass.



No. 5349¼

2½ inch holder, 4 inches high, 5½ inch diameter.

Trade Word.

Price.

Poisoner.per doz., \$2.25

Electric Crystal Etched.



Trade Word.

Price.

Posteatry.per doz., \$2.25

INCANDESCENT LIGHT SUPPLIES.

X-RAY SILVERED GLASS REFLECTORS.



No. 615.

7 inch diameter, 1 1/4 inch deep.

| | | | | | | | | |
|-------------|-------|-------------------|--------------|-------|-------------------|-------------|-------|-------------------|
| Trade Word. | | Price. | Trade Word. | | Price. | Trade Word. | | Price. |
| Portend. | ..... | per doz., \$11.25 | Portentious. | ..... | per doz., \$10.00 | Portfolio. | ..... | per doz., \$10.00 |



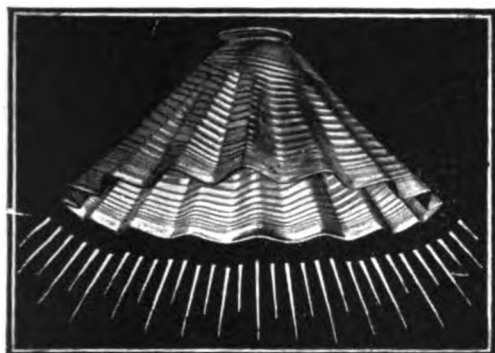
No. 6107.

6 1/4 inch diameter, 2 1/4 inches deep.



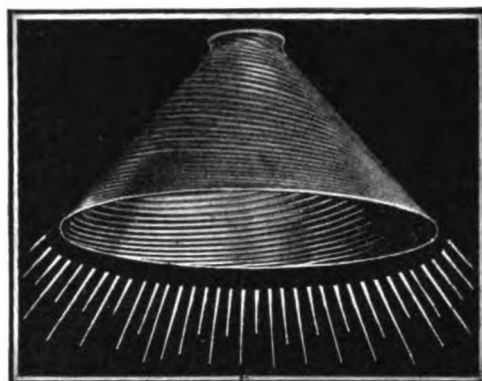
No. 612.

5 1/4 inch diameter, 2 inches deep.



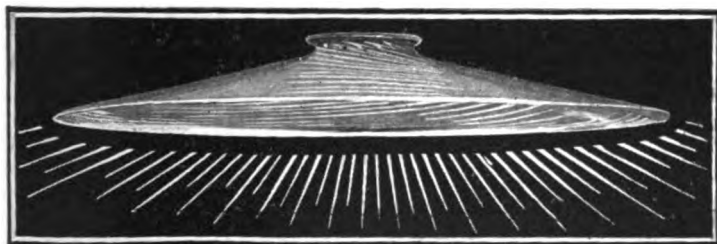
No. 696.

| | | |
|--------------|------------------------------------|---------|
| Trade Word. | | Price. |
| Portico. | 6 inch diameter, 3 1/4 inches deep | \$10.00 |
| Portion. | 7 " " 4 " " | 11.25 |
| Portionless. | 8 " " 5 " " | 13.25 |
| Portliness. | 10 " " 5 1/4 " " | 17.50 |



No. 659.

| | | |
|-------------|-----------------|-------------------|
| Trade Word. | | Price. |
| Posthaste. | 7 inch diameter | per doz., \$ 9.00 |
| Postillion. | 10 " " | " " 13.25 |



No. 660.

| | | |
|--------------|----------------------------------|------------------|
| Trade Word. | | Price. |
| Flightiness. | 8 in. diameter, 2 1/4 in. holder | per doz. \$11.25 |
| Flighty. | 10 " 2 1/4 " " | 13.75 |
| Flimsy. | 12 " 2 1/4 " " | 16.25 |
| Fling. | 14 " 2 1/4 " " | 20.00 |
| Flinty. | 16 " 3 1/4 " " | 27.50 |
| Flip. | 18 " 3 1/4 " " | 35.00 |



No. 699.

| | | |
|-------------|----------------------------------|---------|
| Trade Word. | | Price. |
| Flexion. | 8 in. diameter, 2 1/4 in. holder | \$11.25 |
| Flexious. | 10 " 2 1/4 " " | 13.75 |
| Flexure. | 12 " 2 1/4 " " | 16.25 |
| Flicker. | 14 " 2 1/4 " " | 20.00 |
| Flight. | 16 " 3 1/4 " " | 27.50 |
| | 18 " 3 1/4 " " | 35.00 |



No. 695.

| | | |
|-------------|-----------------|-------------------|
| Trade Word. | | Price. |
| Flippancy. | 8 inch diameter | per doz., \$13.25 |
| Flippant. | 10 " " | " " 17.50 |

INCANDESCENT LIGHT SUPPLIES.

M'CREARY INCANDESCENT REFLECTOR HALF SHADE.

For 16 C. P. Lamps.

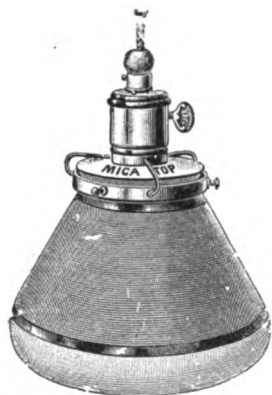
| Trade Word. | Style. | Price. |
|-------------|--------------------|--------|
| Adamant. | Opal.....per doz., | \$6.00 |
| Adapt. | Silvered..... | 8.00 |
| Platonical. | Red..... | 7.00 |
| Platonism. | Blue..... | 7.00 |
| Platonist. | Green..... | 7.00 |
| Platonize. | Yellow..... | 7.00 |
| Adapted. | Crystal roughed. | 7.00 |

For 32 C. P. Lamps.

| Trade Word. | Style. | Price. |
|---------------|--|---------|
| Avow. | Opal.....per doz., | \$ 7.00 |
| Avowable. | Silvered..... | 10.00 |
| Platoon. | Red..... | 8.00 |
| Platter. | Blue..... | 8.00 |
| Plaudit. | Green..... | 8.00 |
| Plausibility. | Yellow..... | 8.00 |
| Avowant. | Crystal roughed.. | 7.00 |
| Plausible. | Aluminum fits both 16 and 32 C. P. lamps..... | 7.00 |



M'CREARY'S GLASS REFLECTOR SHADE, SILVERED.



Showing mica cover and shade holder.

| Trade Word. | Diameter. | Price. |
|-------------|---|--------|
| Adapter. | 7 inches. 3 1/4 inch holder, for 10, 16, 20 and 24 C. P. lamps, each, | \$1.35 |
| Adapting. | 8 " 3 1/4 " " " " 10, 16, 20 " 24 " " " | 1.50 |
| Add. | 9 " 4 " " " " 32 C. P. lamps..... | 2.95 |
| Addable. | 12 " 4 " " " " 50 " " | 4.75 |

M'CREARY SHADE HOLDERS.

| Trade Word. | Price. |
|-----------------------------------|--------|
| Acutely. 3 1/4 inch.....per doz., | \$2.00 |
| Adaunt. 4 " | 3.00 |
| Acumen. 6 " | 9.00 |

M'CREARY MICA DUST PROTECTORS.

| Trade Word. | Price. |
|-----------------------------------|--------|
| Adactyl. 3 1/4 inch.....per doz., | \$2.00 |
| Adamantine. 4 " | 3.00 |
| Adamic. 6 " | 9.00 |

THE M'FADDEN GLASS REFLECTOR SHADE.

The sides of this reflector shade are of flashed glass, green outside, white opal inside and with a ground glass bottom.

Dimensions, 7 inch diameter, 6 inches high, 3 1/4 inch holder.

| Trade Word. | No. | Price. |
|-------------|-------------------|---------|
| Adamites. | 123. Per doz..... | \$24.00 |



INCANDESCENT LIGHT SUPPLIES.

WEATHER-PROOF GLOBES.

Weather-proof for 16 C. P. Lamps.

No. 942-A.

Trade Word.
Plasterer.
Plastering.
Plastic.

| | Price |
|-----------------------------|--------|
| Complete with cap.....each, | \$1.00 |
| Globe only.....“ | .60 |
| Cap only.....“ | .60 |

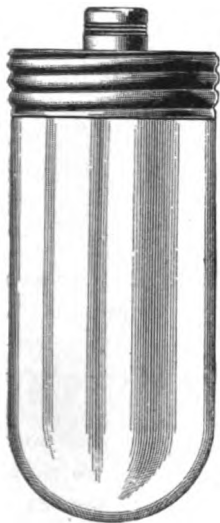
Weather-proof for 32 C. P. Lamps.

Same pattern as 942-A.

No. 942-B.

Placticity.
Plastron.
Plat.

| | |
|-----------------------------|--------|
| Complete with cap.....each, | \$2.00 |
| Globe only.....“ | 1.25 |
| Cap only.....“ | 1.00 |



No. 942-A.

Pear Shape Weather-proof for 16 C. P. Lamps.

No. E-942.

Trade Word.
Plateau.
Plateful.
Platform.

| | Price. |
|-----------------------------|--------|
| Complete with cap.....each, | \$1.00 |
| Globe only.....“ | .60 |
| Cap only.....“ | .60 |



No. E-942.

Vapor-proof for 16 to 50 C. P. Lamps.

No. E-942½.

Trade Word.

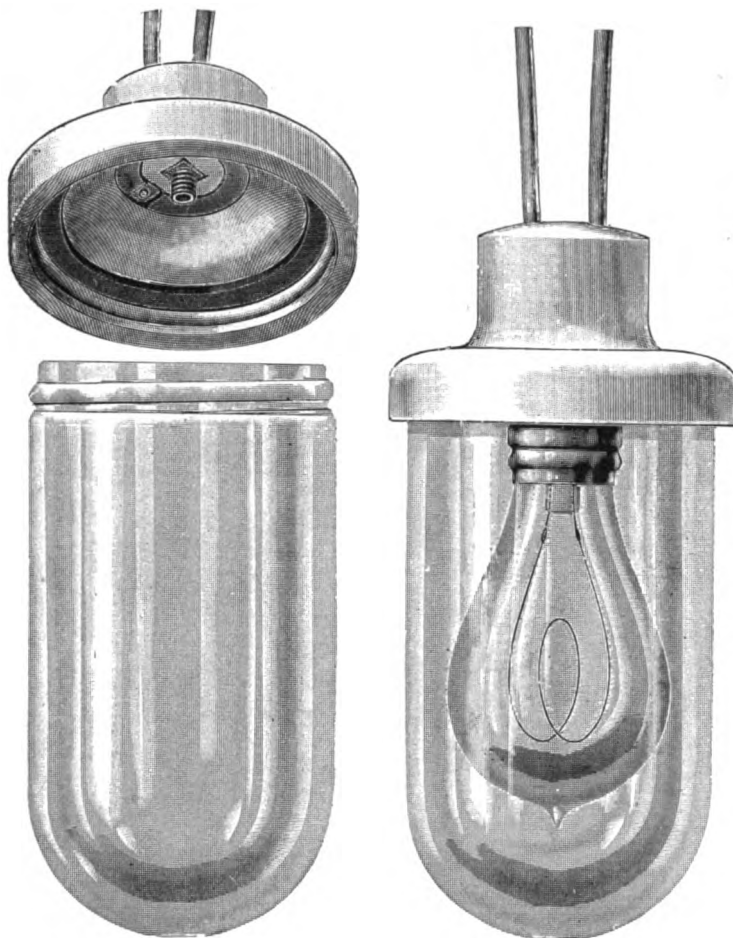
| | Price. |
|--------------------------------------|--------|
| Platina. Complete with cap.....each, | \$2.00 |
| Platinum. Globe only.....“ | 1.25 |
| Platitude. Cap only.....“ | 1.00 |



No. E-942½.

INCANDESCENT LIGHT SUPPLIES.

NEWGARD COMBINATION WATER-PROOF RECEPTACLE AND GLOBE.

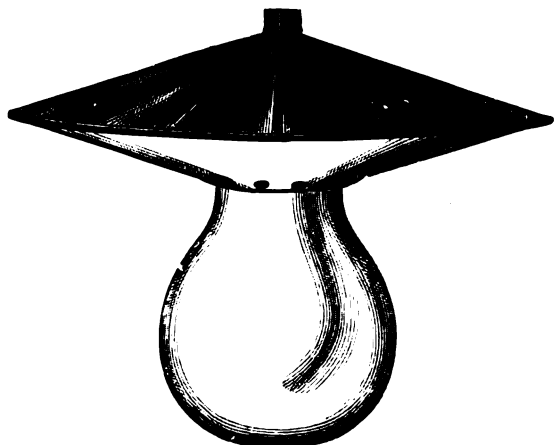


A combination water-proof receptacle and globe complete in one appliance. A single piece of porcelain forms the receptacle or socket for the lamp and cover for the globe.

The conducting wires are permanently sealed into the porcelain cap which is threaded internally to receive the glass globe. A rubber gasket around the neck of the globe makes it **absolutely water tight**.

They are made for T.-H. base lamp only, but by use of a T.-H. adapter, can be used with the Edison base lamp. The globe opening is $2\frac{3}{4}$ inches and will admit either a 16 or 32 candle power lamp.

| | |
|---|--------|
| Trade Word. | Price. |
| Platonic. Packed 12 in a box, per doz , \$12.00 | |
| Each..... | 1 20 |



No. E-1074 $\frac{1}{2}$.

STREET REFLECTOR COMPLETE WITH WEATHER-PROOF GLOBE.

| | |
|---|--------------|
| Trade Word. | Price. |
| Posting. Diam. of reflector 14 inches, tapped for $\frac{3}{8}$ inch iron pipe..... | each, \$3.00 |

INCANDESCENT LIGHT SUPPLIES.

FLUTED TIN REFLECTORS.

Green outside, white inside.



This shade will fit any socket.

| Trade Word. | | Price. |
|-------------|----------------|------------------|
| Polish. | Flat | per doz., \$3.60 |
| Polisher. | Deep cone..... | " 6.00 |



For Edison sockets, requires no shade holders.

| Trade Word. | | Price. |
|-------------|----------------|--------------|
| Polishing. | Flat..... | each, \$0.15 |
| Politer. | Deep cone..... | " .30 |

ENAMELED PAPER SHADE.

To fit our regular 2¼ inch holder.



Diameter 10 inches, depth 5 inches.

| Trade Word. | | Price. |
|-------------|--------------|--------|
| Adipose. | Per doz..... | \$3.00 |

PULPIT HOOD.

Bronze outside, white enameled inside.



| Trade Word. | | Price. |
|-------------|-------------------------|--------------|
| Piratical. | For 3¼ inch holder..... | each, \$3.00 |

UTILITY CELLULOID SHADES.

Green, white lined.

| Trade Word. | | Price. |
|-------------|------------------------|-------------------|
| Postboy. | 10 inch flat cone..... | per doz., \$14.40 |
| Postchaise. | 10 " deep cone..... | " 20.00 |

INCANDESCENT LIGHT SUPPLIES.

TIN REFLECTORS.

Green outside, glossy enamel white inside, all seamless.

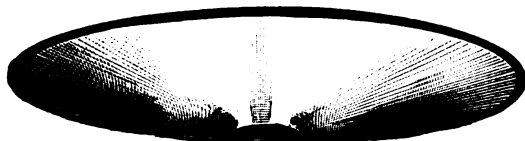
Deep Cone Reflector.



For 2¼ shade holder.

| Trade Word. | | Price. |
|-------------|-----------------------|--------|
| Adjacent. | 8 inches.....per doz, | \$2.25 |
| Adjective. | 10 " | 3.00 |
| Adjoin. | 12 " | 4.00 |

Convex Reflector.



For 2¼ shade holder.

| Trade Word. | | Price. |
|-------------|---------------------|--------|
| Adown. | 8 inch.....per doz, | \$2.70 |
| Adread. | 10 " | 3.50 |
| Adriatic. | 12 " | 4.65 |

Deep Cone Reflector.



No. 317.

7 inches diameter, 7¼ inches high.

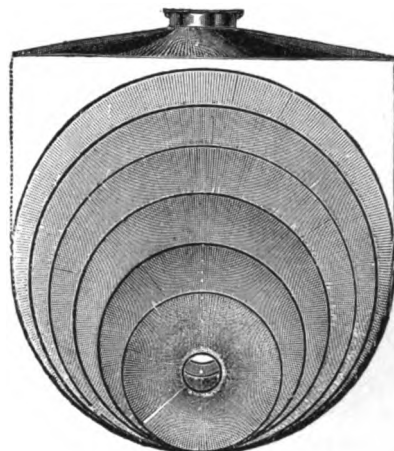
| Trade Word. | | Price. |
|-----------------|----------|--------|
| Adrogation..... | per doz, | \$6.00 |



No. 219.

| Trade Word. | | Price. |
|----------------|-------|--------|
| Adjudging..... | each, | \$0.35 |

Flat Cone Reflector.

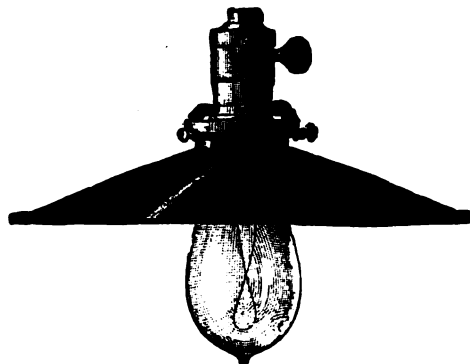


For 2¼ shade holder.

Also to order for the Edison or other sockets without using any shade holders.

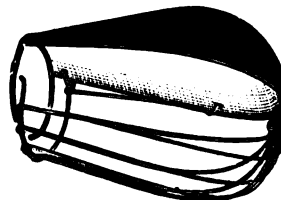
| Trade Word. | | Price. |
|--------------|---------------------|--------|
| Admonition. | 8 inch.....per doz, | \$1.75 |
| Admonitory. | 10 " | 2.25 |
| Adolescence. | 12 " | 3.00 |
| Adorable. | 14 " | 4.25 |
| Adoration. | 16 " | 5.50 |
| Adore. | 18 " | 7.00 |

Half Deep Reflector.



| Trade Word. | | Price. |
|-------------|--------------------------------|--------|
| Piracy. | 8-inch, 2¼ holder.....per doz, | \$1.80 |
| Piroque. | 10 " 2¼ " | 2.35 |
| Pirate. | 12 " 2¼ " | 3.10 |

Tin Reflector Half Shade.



| Trade Word. | | Price. |
|-------------|------------------------|--------|
| Policy..... | With wire guard, each, | \$0.75 |

INCANDESCENT LIGHT SUPPLIES.

DALE ALUMINUM REFLECTORS.

Polished inside, japanned green outside.



No. 6585.

Cone.

| Trade Word. | | Price. |
|-------------|----------------------------|--------------|
| Politely. | 8 inch, for 2¼ holder..... | each, \$0.90 |
| Politeness. | 10 “ “ 2¼ “ | “ 1.00 |



No. 6584.

Flat.

| Trade Word. | | | | Price. |
|-------------|--------------------------------|-------|-------|--------|
| Politic. | 10 inch, for 2 1/4 holder | ..... | each, | \$0.85 |
| Political. | 12 " 2 1/4 " | ..... | " | 1.00 |
| Politician. | 14 " 3 1/4 " | ..... | " | 1.20 |
| Politics. | 16 " 3 1/4 " | ..... | " | 1.50 |
| Polity. | 18 " 3 1/4 " | ..... | " | 2.00 |



No. 6583.

Convex.

| Trade Word. | | Price. |
|-------------|-----------------------------------|--------|
| Polka. | 10 inch for 2¼ holder.....each, | \$0.85 |
| Pollen. | 12 " 2¼ " " | 1.00 |
| Polliwog. | 14 " 3¼ " " | 1.20 |
| Pollock. | 16 " 3¼ " " | 1.50 |
| Pollute. | 18 " 3¼ " " | 2.00 |



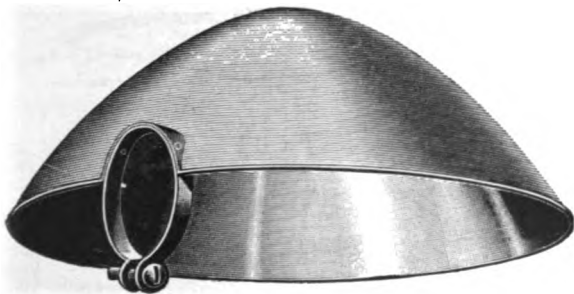
No. 6586.

**7 inch shade requires 3¼ inch holder, will admit
16 to 24 C. P. lamp.**

| | |
|-------------------------------|----------------|
| Trade Word. | Price. |
| Polluter. Per doz..... | \$18.00 |

PARABOLIC REFLECTOR.

Green outside, polished inside.

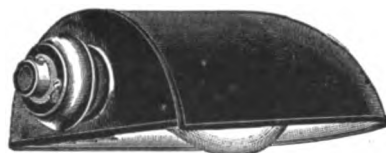


No. 6582.

| Trade Word. | Price. |
|--|---------|
| Pollution. For 16 C. P. lamp.....per doz., | \$ 7.50 |
| Poltron. " 32 " " " | 11.50 |

BILLIARD REFLECTOR.

Green outside, white enameled inside.



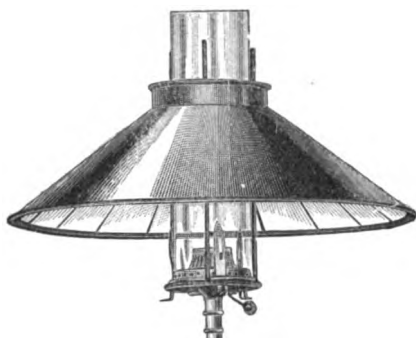
| | |
|--|---------------|
| Trade Word. | Price. |
| Pindarus. For 2¼ inch holder .....per doz., | \$7.20 |

INCANDESCENT LIGHT SUPPLIES.

SILVER-PLATED MIRROR REFLECTORS.

In ordering shades on this page please state whether desired to use with 2¼ inch or 3¼ inch shade holder.

Deep Cone Reflector.



For use over Welsbach and Argand gas burners.
 Trade Word.
 Quack. 12 inch..... each, \$1.20

Price.

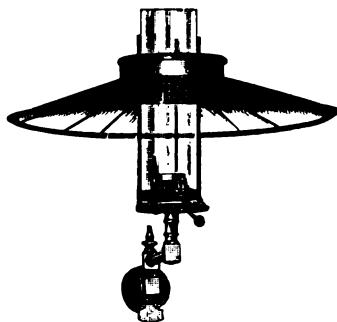
Deep Cone Reflector.



| | | | | |
|-------------|--------|----------------------------|-------|--------|
| | | For 2¼ or 3¼ shade holder. | | Price. |
| Trade Word. | 7 inch | ..... | each, | \$1.00 |
| Quadrat. | 10 " | ..... | " | 1.05 |
| Adhesion. | 12 " | ..... | " | 1.25 |

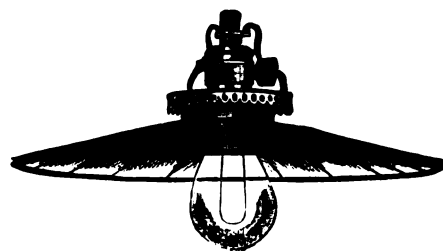
Flat Cone Reflector.

Flat Cone Reflector.



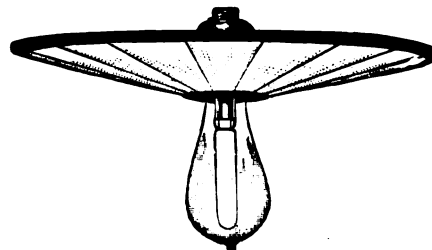
For use over Welsbach and Argand gas burner.
 Trade Word.
 Quackery. 12 inch..... each, \$1.20

Price.



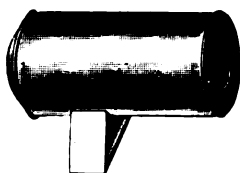
| | | | | |
|-------------|---------|----------------------------|-------|--------|
| | | For 2¼ or 3¼ shade holder. | | Price. |
| Trade Word. | 10 inch | ..... | each, | \$0.90 |
| Addle. | 12 " | ..... | " | 1.00 |
| Address. | 14 " | ..... | " | 1.25 |
| Addresser. | 16 " | ..... | " | 1.65 |
| Addressing. | 18 " | ..... | " | 2.10 |

Convex Reflector.



| | | | | |
|-------------|---------|----------------------------|-------|--------|
| | | For 2¼ or 3¼ shade holder. | | Price. |
| Trade Word. | 10 inch | ..... | each, | \$0.90 |
| Adder. | 12 " | ..... | " | 1.00 |
| Addict. | 14 " | ..... | " | 1.25 |
| Adding. | 16 " | ..... | " | 1.65 |
| Addition. | 18 " | ..... | " | 2.10 |

Orchestra Shade.



Gold outside, bright tin inside.
 Trade Word.
 Quackish. each, \$0.80

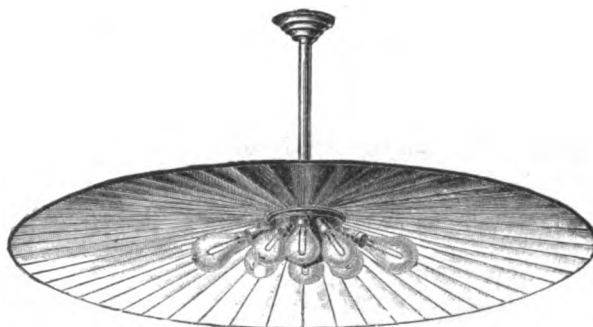
Price.

INCANDESCENT LIGHT SUPPLIES.

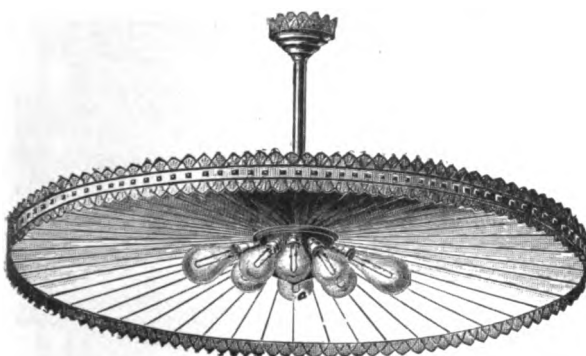
SILVER-PLATED MIRROR REFLECTORS.

For Incandescent Clusters.

| Trade Word. | | Price Each. |
|-------------|--|----------------|
| Adjudicate. | 20 inch, for 3 lights complete..... | \$ 6.00 |
| Adjunct. | 24 " " 4 " " | 7.75 |
| Adjunction. | 30 " " 6 " " | 10.75 |
| Adjure. | 35 " " 8 " " | 14.00 |
| Adjutrix. | 20 " reflector only, fits $\frac{3}{8}$ iron pipe | 3.00 |
| Admixtion. | 24 inch reflector only, fits $\frac{1}{2}$ iron pipe..... | 4.50 |
| Adnascent. | 30 inch, reflector only, fits $\frac{1}{2}$ iron pipe | 7.00 |
| Adonic. | 35 inch, reflector only, fits $\frac{1}{2}$ iron pipe..... | 10.00 |



For Incandescent Clusters.



| Trade Word. | | Price Each. |
|-------------|--|----------------|
| Adjust. | 20 inch, for 3 lights, complete..... | \$ 8.75 |
| Adjusted. | 24 " " 4 " " | 10.75 |
| Adjustive. | 30 " " 6 " " | 14.25 |
| Adjutant. | 35 " " 8 " " | 18.00 |
| Adoring. | 20 " reflector only, fits $\frac{3}{8}$ iron pipe..... | 5.75 |
| Adulator. | 24 inch, reflector only, fits $\frac{1}{2}$ iron pipe..... | 7.50 |
| Adulteress. | 30 inch, reflector only, fits $\frac{1}{2}$ iron pipe | 10.50 |
| Adventurer. | 35 inch, reflector only, fits $\frac{1}{2}$ iron pipe..... | 14.00 |

For Incandescent Clusters with Prisms.

| Trade Word. | | Price Each. |
|-------------|---|----------------|
| Flustered. | 20 inch, for 3 lights, complete..... | \$15.00 |
| Quartile. | 24 " " 4 " " | 18.50 |
| Quadrature. | 30 " " 6 " " | 24.00 |
| Quadrille. | 35 " " 8 " " | 29.50 |
| Quadroon. | 20 " reflector only, fits $\frac{3}{8}$ iron pipe..... | 12.00 |
| Quadruped. | 24 inch, reflector only, fits $\frac{1}{2}$ iron pipe..... | 15.25 |
| Quadruple. | 30 inch, reflector only, fits $\frac{1}{2}$ iron pipe..... | 20.25 |
| Quaff. | 35 inch, reflector only, fits $\frac{1}{2}$ iron pipe..... | 25.50 |

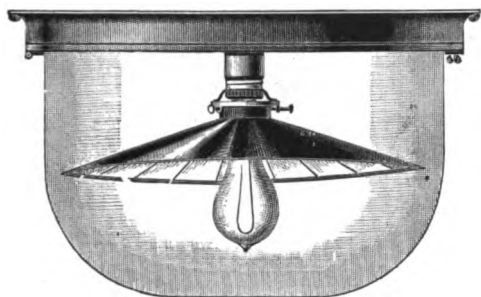


Above prices do not include lamps or sockets. Any style trimmed with prisms if so desired. Prices quoted for larger sizes upon application.

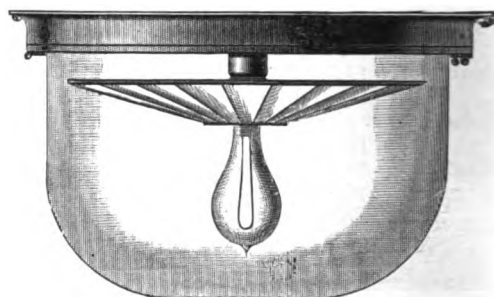
INCANDESCENT LIGHT SUPPLIES.

PORCH AND PIAZZA SILVER-PLATED MIRROR REFLECTORS.

For use under porch or piazza ceiling, or upon wall of house. Acid finish brass ring and holder. Very neat in appearance. Lamps fully enclosed and protected from the weather.



Style No. 674.

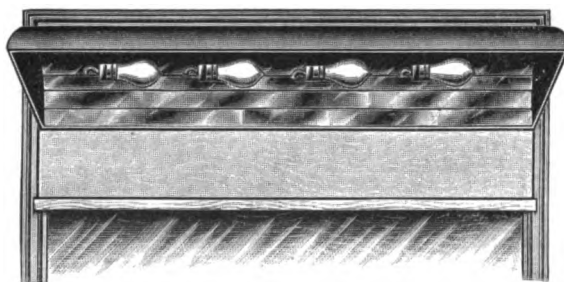


Style No. 676.

| Trade Word. | No. | | Price |
|-------------|------|---|--------|
| Odor. | 670. | Ring, and clear globe, no wall socket or lamp..... | \$4.00 |
| Odorous. | 671. | Ring only..... | 2.00 |
| Offal. | 672. | Clear globe only..... | 2.00 |
| Offense. | 673. | Ring, globe and 10 inch reflector, with 2½ or 3¼ inch holder..... | 3.85 |
| Offend. | 674. | “ “ “ “ “ “ “ “ | 3.85 |
| Offender. | 675. | “ “ “ “ “ “ “ “ | 3.85 |
| Offensive. | 676. | “ “ “ “ “ “ “ “ | 3.85 |

As these goods are bulky they are invariably shipped from factory direct.

SHOW WINDOW REFLECTOR.

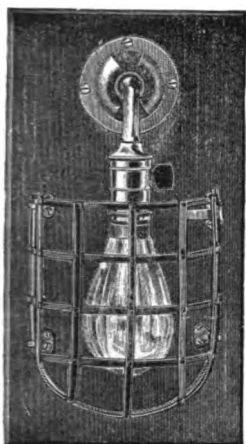


Placed in top of window next to the glass and reflects the light downward and inward; can be placed to throw the light at any angle; fills the window with light the source of which cannot be seen from outside. It's the latest in window lighting.

Prices furnished on application; give length of window and number of lights, also voltage of circuit.

INCANDESCENT LIGHT SUPPLIES.

MARINE FIXTURES.

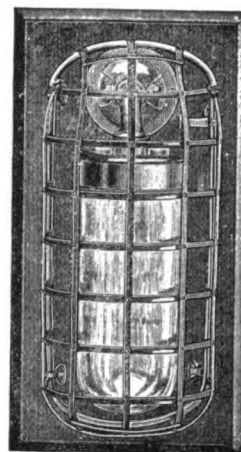


No. 560. Half wire guard.

Half Wire Guard.

No. 560.

| | | |
|-------------|-----------|---------|
| Trade Word. | | Price. |
| Obtruse. | Each..... | \$12.00 |

No. 558. Full wire guard,
Steam tight globe.**Full Wire Guard.**

No. 558.

| | | |
|-------------|-----------|---------|
| Trade Word. | | Price. |
| Obtrusely. | Each..... | \$13.50 |

No. 555. Steam tight globe
guarded.**Steam Tight Globe, Guarded.**

No. 555.

| | | |
|--------------|------------|--------|
| Trade Word. | | Price. |
| Obtruseness. | Each | \$9.50 |

Steam Tight Globe Without Guard.

No. 555.

| | | |
|-------------|------------|--------|
| Trade Word. | | Price. |
| Obverse. | Each | \$6.50 |

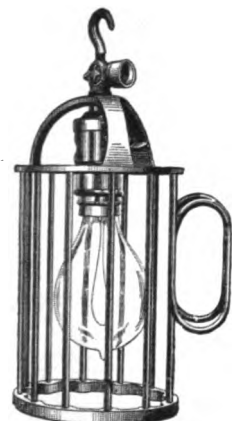


No. 555. Steam tight globe.

Brewers' Portable.

No. E-905.

| | | |
|-------------|------------|--------|
| Trade Word. | | Price. |
| Obvious. | Each | \$3.00 |



No. E-905. Brewers' portable.

Signal or Anchor Light.

| | | |
|-------------|-----------|---------|
| Trade Word. | | Price. |
| Occident. | Each..... | \$40.00 |



Signal or anchor light.

Portable Lamp Holder.

No. 4.

| | | |
|-------------|-----------|--------|
| Trade Word. | | Price. |
| Occidental. | Each..... | \$8.00 |

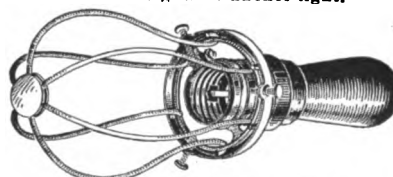


No. 4. Portable lamp holder.

Portable Lamp Holder.

No. 4561.

| | | |
|-------------|--------|--------|
| Trade Word. | | Price. |
| Occulsion. | Each.. | \$1.50 |



No. 4561. Portable lamp holder.

INCANDESCENT LIGHT SUPPLIES.

MARINE FIXTURES.



No. 2. Electric ceiling fixture, heavy screw globe, water tight.

Electric Ceiling Fixtures.

No. 2.

| | | |
|-------------|------------|--------|
| Trade Word. | | Price. |
| Occupancy. | Each | \$9.75 |

No. 3.

| | | |
|-------------|------------|---------|
| Trade Word. | | Price. |
| Occupancy. | Each | \$13.50 |



No. 3. Electric ceiling fixture, heavy screw globe, water tight.



No. 412. One light bracket.

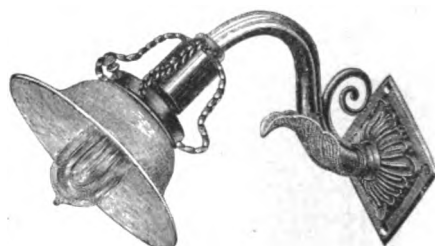
One Light Brackets.

No. 412.

| | | |
|-------------|-----------|--------|
| Trade Word. | | Price. |
| Occult. | Each | \$5.20 |

No. 375.

| | | |
|-------------|---------|--------|
| Trade Word. | | Price. |
| Occupant. | Each .. | \$6.50 |



No. 375. One light bracket.

Fancy One Light Bracket.

No. 551.

| | | |
|-------------|------------|--------|
| Trade Word. | | Price. |
| Occurrence. | Each | \$5.50 |

Plain One Light Bracket.

No. 378.

| | | |
|-------------|------------|--------|
| Trade Word. | | Price. |
| Ocean. | Each | \$4.00 |



No. 551. Fancy one light bracket.
No. 378. Plain " " "

Electric Freight or Cargo Light.

No. 1.

| | | |
|-------------|---------------------|---------|
| Trade Word. | | Price. |
| Ochre. | With guard....each, | \$42.00 |



No. 1. Brass 4 light electric freight or cargo light. Heavy hinged guard and white enameled reflector.

Desk Light.

No. 5.

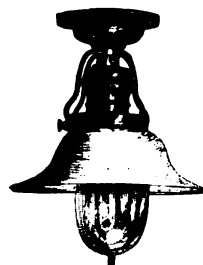
| | | |
|-------------|------------|---------|
| Trade Word. | | Price. |
| Octagon. | Each | \$17.00 |



No. 5. Desk light.
Adjustable to any angle.

One Light Pendants.

| | | |
|-------------|-----------|--------------|
| Trade Word. | No. | Price. |
| Occultist. | 305. | each, \$2.50 |
| Oddity. | 321. | " 2.50 |



No. 305.



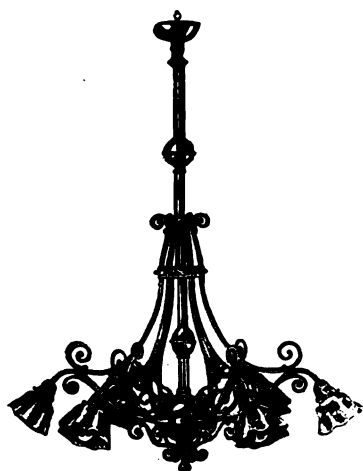
No. 321.

One light pendants.

INCANDESCENT LIGHT SUPPLIES.

MARINE FIXTURES.

Finished polished brass. Prices include glassware, but without electric lamps and sockets.



No. 380.
Six light electroler.

Electroler No. 380.

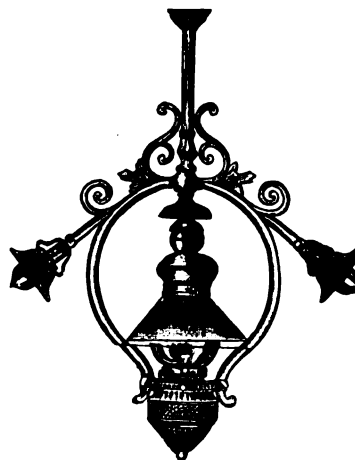
Six light.

| | |
|------------------------|-------------|
| Trade Word. | Price Each. |
| Oddness. Each. | \$160.00 |

Electroler No. 374.

Two electric—one oil.

| | |
|-----------------------|-------------|
| Trade Word. | Price Each. |
| Oddeon. Each. | \$90.00 |

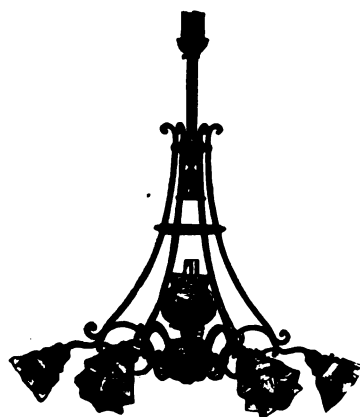


No. 374.
Two light electric—one light oil.

Electroler No. 396.

Six electric—one oil.

| | |
|-----------------------|-------------|
| Trade Word. | Price Each. |
| Odious. Each. | \$159.00 |

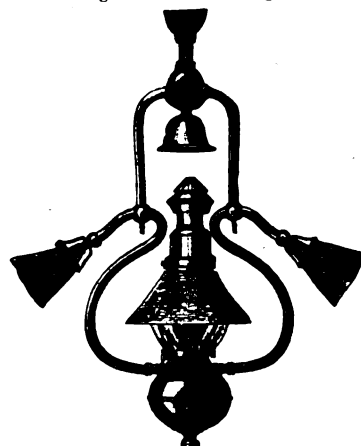


No. 396.
Six light electric—one light oil.

Electroler No. 369.

Two electric—one oil.

| | |
|--|-------------|
| Trade Word. | Price Each. |
| Odiousness. 2 electric, 1 oil, \$72.00 | |
| Oiliness. 4 " " 90.00 | |
| Oilcloth. 6 " " 100.00 | |

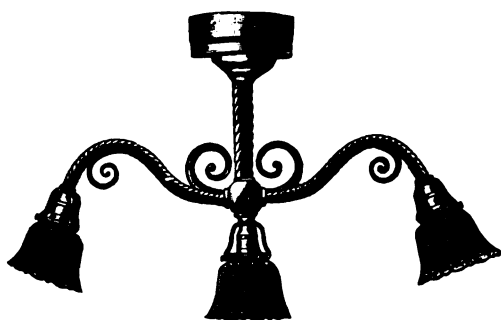


No. 369.
Two-light electric—one light oil.

Electroler No. 421.

Three-light electroler.

| | |
|----------------------|--------|
| Trade Word. | Price. |
| Odium. Each, \$37.00 | |

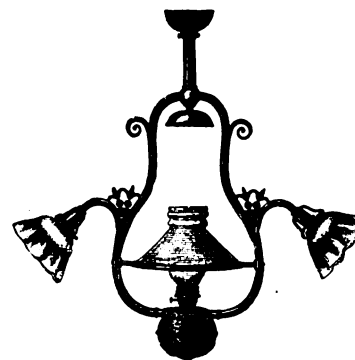


No. 421.
Three light electroler.

Electroler No. 378.

Two light electric—one light oil.

| | |
|-------------------------|--------|
| Trade Word. | Price. |
| Odometer. Each, \$60.00 | |



No. 378.
Two light electric—one light oil.

INCANDESCENT LIGHT SUPPLIES.

MARINE APPLIANCES.

All marine apparatus is made to conform to the standards of the U. S. Navy. The fact that these goods have been supplied the Navy Department for several years, meeting its rigid requirements in every respect, is sufficient recommendation for this line of apparatus.

Marine Sockets.

These sockets are finished in marine black. Brass finish will be furnished if so ordered.



50966.



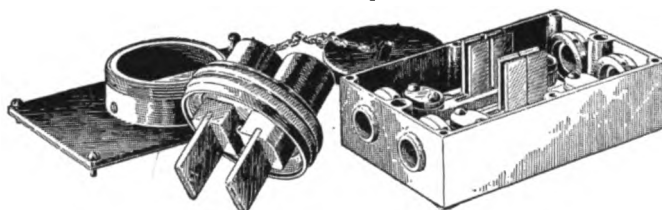
22668.



50965.

| Trade Word. | No. | | Price. |
|-------------|--------|------------------------------------|--------|
| Quitclaim. | 50965. | Marine keyless socket..... | \$0.60 |
| Quite. | 50966. | “ key “ | .75 |
| Quiver. | 22668. | Non-watertight attaching plug..... | .90 |

Marine Receptacles.

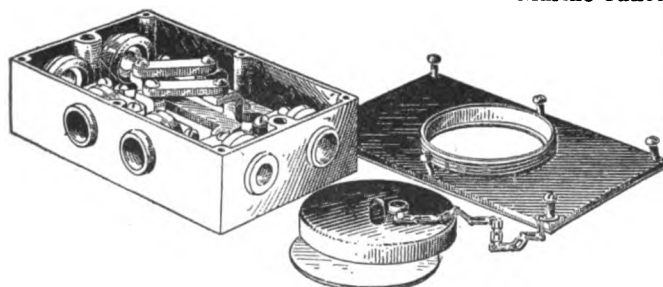


64113.

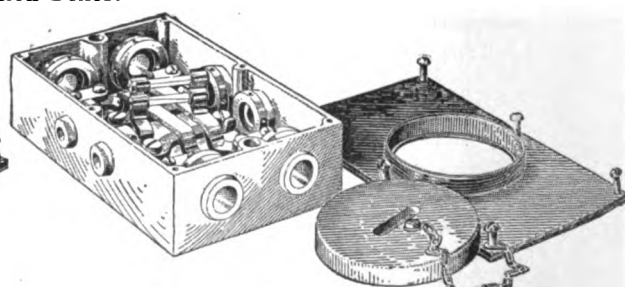
Cat. Nos. do not include rubber gaskets. They should be ordered separately and sizes specified.

| Trade Word. | No. | | Price. |
|-------------|--------|--|---------|
| Quixotic. | 22526. | Watertight receptacle, with attaching plug, 5 amperes..... | \$ 5.00 |
| Quoit. | 64113. | Searchlight, watertight receptacle, with plug..... | 19.00 |
| Quota. | 22654. | Non-watertight lamp receptacle..... | .30 |

Marine Junction Boxes.



50973.



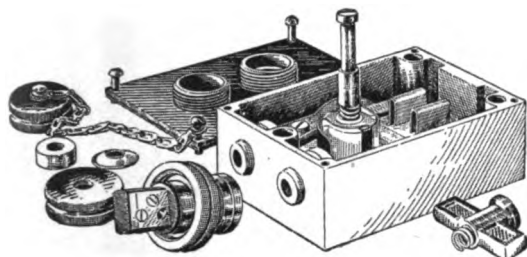
50967.

| Trade Word. | No. | | Price. |
|-------------|--------|--|--------|
| Quotable. | 22573. | Searchlight junction box..... | \$6.00 |
| Quoth. | 50967. | Four-way branch junction box..... | 8.00 |
| Quotient. | 50973. | Feeder junction box..... | 8.00 |
| Rabbi. | 63766. | Key for removing covers of Cat. Nos. 50967, 64113..... | .80 |

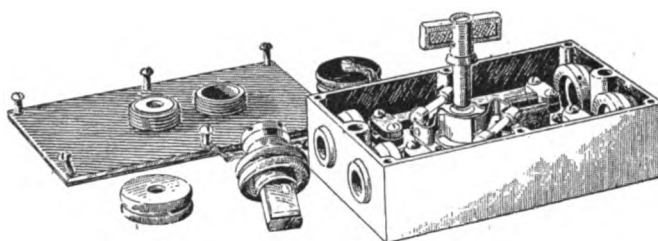
INCANDESCENT LIGHT SUPPLIES.

MARINE APPLIANCES.

Marine Switches.



No. 63758.

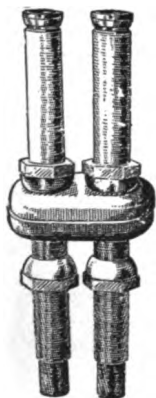


No. 63759.

Catalogue numbers do not include rubber gaskets. They should be ordered separately and sizes specified.

| Trade Word. | No. | | Prices. |
|--------------|--------|--|---------|
| Quilling. | 22656. | Single-pole, non-watertight snap switch, capacity 10 amperes..... | \$ 0.60 |
| Quilt. | 22474. | “ watertight switch, capacity 5 amperes..... | 5.00 |
| Quilted. | 22530. | Double-pole, “ “ “ 25 “ | 7.00 |
| Quilting. | 22681. | “ “ “ “ 40 “ | 14.00 |
| Quince. | 22602. | “ “ “ “ 100 “ | 23.00 |
| Quinine. | 22685. | “ double-throw, watertight switch, 40 amperes..... | 16.00 |
| Quincy. | 22514. | Pulsating switch..... | 4.00 |
| Quintal. | 63758. | Single-pole, watertight switch and receptacle, 5 amperes, with plug..... | 6.50 |
| Quinted. | 22550. | Double-pole, “ “ “ 25 “ “ | 10.00 |
| Quintile. | 63759. | Combined switch, receptacle and junction-box, with plug..... | 10.00 |
| Quintillion. | 22679. | Watertight attaching plug for Catalogue No. 22550..... | 1.10 |
| Quip. | 22680. | “ “ “ “ Nos. 63758, 63759, 22526..... | 1.10 |

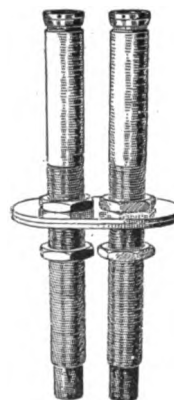
Marine Deck Tubes.



No. 50974.



No. 50971.



No. 50970.

| Trade Word. | No. | | Price |
|-------------|--------|------------------------------------|--------|
| Quintuple. | 50974. | Protective deck stuffing tube..... | \$8.00 |
| Quire. | 50970. | Main deck stuffing tube..... | 6.00 |
| Quirk. | 50971. | Bulkhead “ “ | 1.00 |

INCANDESCENT LIGHT SUPPLIES.

CUTTER'S "ALWAYS LEVEL" SUSPENSION STREET HOOD.

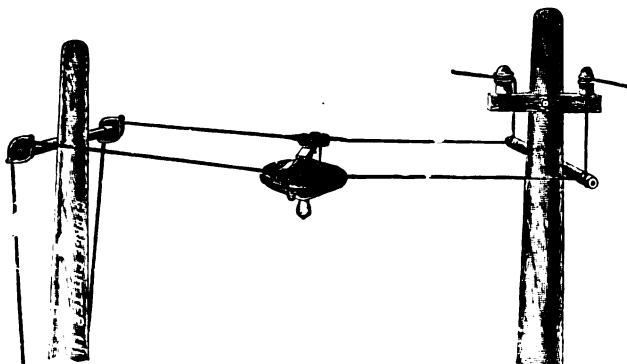
Is supported by the two wires leading to it from one side of the street, and two cords passing over pulleys at the opposite side.

Complete with special socket, spreader tip cross arm, iron brace arm, iron pulley cross arm and pair of adjusting clamps.

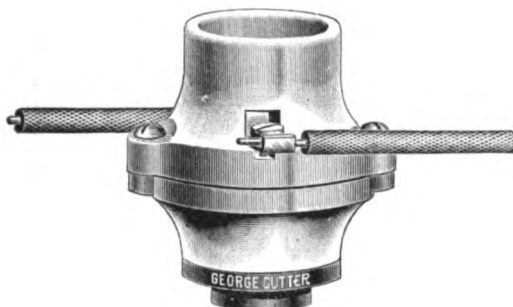
Trade Word.

Price.

Perverse. Cutters "Always Level" Suspension Street Hood, complete..each, \$6.00



SPECIAL STREET HOOD SOCKET.



Quickly wired. Gives extra high insulation.

Trade Word.

Price.

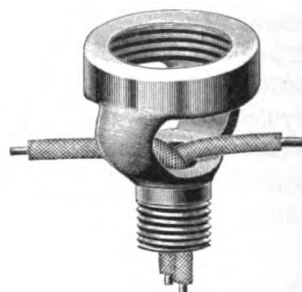
Perversely. T.-H. base.....each, \$0.50

Perverseness. W. H. " " 0.50

Pervasive. Edison " " 0.50

STREET HOOD NOZZLE.

For standard multiple or series sockets.



In ordering always state style of socket to be used.

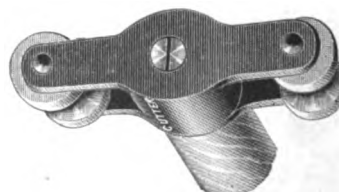
Trade Word.

Price.

Pervert. Each..... \$0.20

SPREADER TIP.

With insulators.



ADJUSTING CLAMP.



Trade Word.

Price.

Pervertible. Each..... \$0.30

Trade Word.

Pervious.

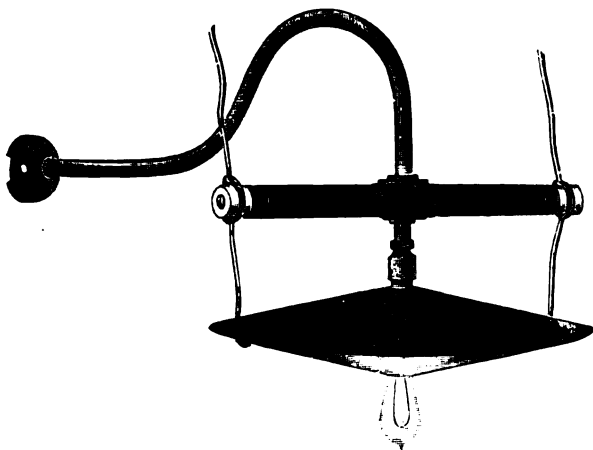
Flutest.

Each \$0.30

Enameled cross arm with pair of spreader tips..... 0.80

INCANDESCENT LIGHT SUPPLIES.

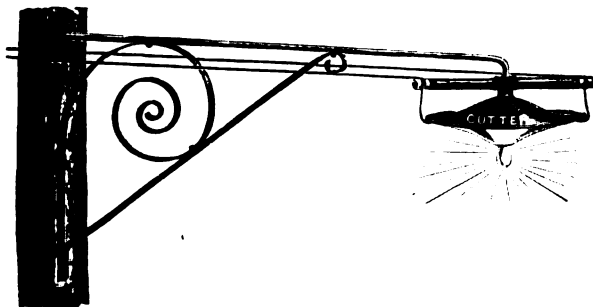
C. E. CO. STREET HOOD REFLECTOR.



These hoods are made of extra strong material, being japanned on the top and white enameled on inside. The prices do not include lamps, sockets or wiring.

| Trade Word. | Price. |
|--|--------|
| Abrogating. 12 inch, complete per cut....each, | \$2.50 |
| Abridging. 18 " " " " " | 3.00 |

CUTTER'S BOULEVARD STREET HOOD.

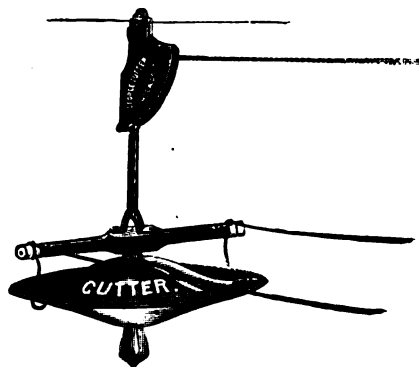


| Trade Word. | Price. |
|---|--------|
| Portly. With ornamental 5 foot bracket arm, each..... | \$6.00 |

CUTTER'S SWINGING HOOD.

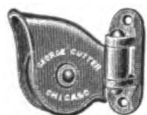
With cross arm, socket and Petite (lamp supporting) pulley.
Always state base of socket wanted.

| Trade Word. | Price. |
|----------------------|--------|
| Pineapply. Each..... | \$3.50 |



CUTTER'S MIDGET POLE PULLEY.

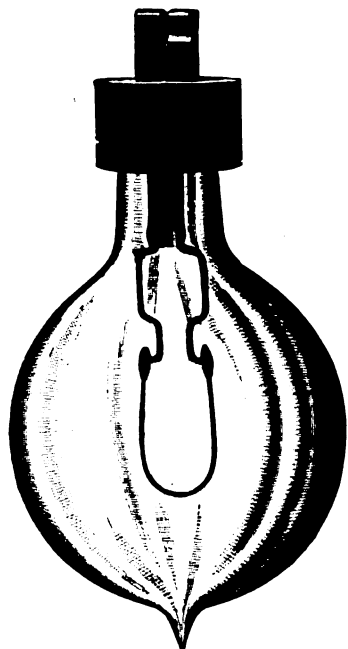
A weather-proof swiveled pulley for use with above.



| Trade Word. | Price. |
|---------------------|--------|
| Pinmoney. Each..... | \$0.70 |

INCANDESCENT LIGHT SUPPLIES.

BERNSTEIN SERIES LAMPS.



Series incandescent lamps are placed in circuit in the same manner as arc lamps, and require no special wiring. When a lamp burns out, the circuit is kept closed by the action of the cut-out device in the socket ("the contact"), which provides a short circuit around the lamp; after the burned out lamp has been replaced by a new one, the "contact," which for lamps up to 50 C. P. may also be used as an "off and on" key, is withdrawn from the socket, and a new one inserted (it should be in the off position when being withdrawn or inserted). Contacts are made ready for use again by merely inserting a new "contact cap" (after removing the old one) into the hollow screw at the end of the contact, the hollow screw should then be forced up against the plunger till the plunger point is forced firmly under the tension of the spiral spring (which should not be accidentally dropped from the "contact" during the operation)—against the high resistance material in the cap. The ease and simplicity of the operation will readily be seen on inspection. All outside parts of sockets and lamps are of insulating material, and may therefore

be safely handled on line circuits.

These lamps will be capped for Bernstein socket unless otherwise ordered, and are always shipped direct from factory.

State explicitly the current and candle power of the lamps desired for arc circuits.

Lamps for Arc Circuits.

For any *stated* current between 6 and 10 ampere, both inclusive.

| Trade Word. | Type. | | | | Price. |
|-------------|-------|-----|--------------|-------|--------|
| Pagoda. | B | 20 | Candle power | each, | \$2.00 |
| Pain. | J | 25 | " " | " | 2.00 |
| Paint. | D | 30 | " " | " | 2.00 |
| Palm. | G | 32 | " " | " | 2.00 |
| Paley. | K | 50 | " " | " | 2.50 |
| Panel. | O | 65 | " " | " | 2.60 |
| Panic. | M | 75 | " " | " | 2.60 |
| Pang. | L | 100 | " " | " | 2.60 |
| Panto. | F | 125 | " " | " | 2.60 |

Bernstein Series Socket.

Including one "Contact" (cut out device.)

| Trade Word. | | Price. |
|--------------|---------------------------|--------------|
| Naturalize. | Socket and "contact"..... | each, \$5.00 |
| Naturalized. | Extra contacts..... | " .55 |
| Naturally. | Contact caps..... | " .06 |

INCANDESCENT LIGHT SUPPLIES.

LAMPS FOR ALTERNATING CURRENT STREET SYSTEM.

For any stated current below 6 amperes, on which the lamps are run in series between the terminals of an alternating current dynamo. In ordering state the candle power desired, the number of lamps to be run in series and the potential of the circuit.

| Trade Word. | Type. | Candle Power. | Price. |
|-------------|-------|---------------|--------------|
| Party. | B | 20..... | each, \$1.30 |
| Pass. | J | 25..... | " 1.30 |
| Patch. | D | 30..... | " 1.30 |
| Path. | N | 40..... | " 1.50 |
| Pawn. | K | 50..... | " 1.70 |

MISCELLANEOUS SERIES CIRCUITS.

For any stated current below 6 amperes.

| Trade Word. | Type. | Candle Power. | Price. Each. |
|-------------|-------|---------------|--------------|
| Peace. | E | 16..... | \$1.30 |
| Phosphate. | B | 20..... | |
| Peak. | J | 25..... | |
| Peer. | D | 30..... | |
| Perch. | G | 32..... | 1.50 |
| Peril. | N | 40..... | |
| Pert. | H | 45..... | 1.75 |
| Petal. | K | 50..... | |
| Pest. | A | 60..... | |

BERNSTEIN SERIES FITTINGS.

| Trade Word. | | Price. Each. |
|--------------|---|--------------|
| Phosphorate. | Wall socket and plug, for use in connection with portable fixture by means of flexible cord. | \$5.50 |
| Phosphoric. | Hanger board with canopy, slate back. | 2.75 |
| Flustering. | " " " " switch attached. | 4.00 |
| Flute. | Shunt switch (for loops up to 120 volts) | 4.00 |
| Fluted. | Street fixture, exclusive of socket and lamp. | 5.00 |
| Fluting. | Wiring socket to street fixture. | .50 |
| Potend. | Shade holders, 2½ inch (special for combination socket) per doz., | 3.00 |

BANK BOARD.

| Trade Word. | Price. |
|---|----------|
| Prod. For alternating current street systems, including current indicator, switch, fuse and 4 sockets, | \$100.00 |
| Electroliers, Brackets, Pendants, Portable Stands, etc., to order. Cuts and particulars upon application. | |

INCANDESCENT LIGHT SUPPLIES.

SAWYER-MAN INCANDESCENT LAMPS.

We carry in Chicago stock a complete assortment of the standard bases and voltages of the **"Genuine Sawyer-Man Incandescent Lamps"**, which have the well earned reputation of being the **"Standard Incandescent Lamp"** of the country.

No expense is spared at the factory to produce a lamp complete mechanically and suitable to meet the most exacting electrical requirements.

A uniform distribution of light is obtained by retaining in the lower voltages the familiar figure 8 loop, and by the coiled filament in the 100 volt type; lamps of the latter type having the stem anchored filament.

In all lamps the joint between the leading in wires and the carbon is made by electro-paste carbon, no paste cement being used.

All lamps being mould blown are uniform in size, and are made of the best lead glass. Alternating current series street lamps are carefully selected.

We believe the genuine Sawyer-Man Lamp needs no further introduction to the trade.

When ordering incandescent lamps of any description, always specify candle power, base, voltage and wattage desired.

We are prepared to furnish porcelain base lamps for T.-H. sockets and recommend them for breweries, packing houses, sign work, etc.

In every case the standard barrel quantity shall not be less than 200 lamps in 8-10-16-20-25 C. P. or in candelabra lamps, tubular or small round bulbs lamps.

32 to 50 C. P. inclusive, not less than 100 lamps

100 to 150 C. P., not less than 20 lamps.

16 C. P. railway lamps, not less than 200 lamps.

Frosted lamps, all types and candle power 20 per cent. additional.

Superficially colored or dipped, all candle powers, 20 per cent. additional.

Natural colored, 8 to 25 C. P., green, blue, purple or amber, 10 cents net additional.

Opal, ruby or canary, 20 cents net additional.

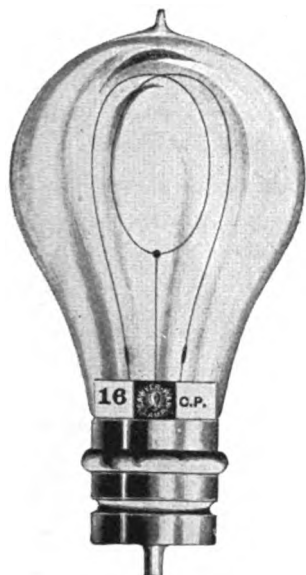
The above prices are for lamps based only with Edison or Westinghouse bases; for lamps based with other than the above mentioned bases an additional charge will be made as follows:

Thomson-Houston, United States, Brush-Swan and Schaefer bases, 1 cent.

Hawkeye base, 2 cents.

All other bases, 3 cents.

INCANDESCENT LIGHT SUPPLIES.



GENUINE SAWYER-MAN INCANDESCENT LAMPS.

Standard 110 volt coiled and tied filament lamp.

Sawyer-Man Lamps are furnished regularly for voltage 40 to 130, efficiency 3.1, 3.5, 4 and 4.5 watts per candle as specified.

The filament of lamps from 40 to 99 volts is the figure 8 loop; 100 to 130 volt and street railway types coiled and stem anchored as per cut. Railway lamps are carefully selected for series burning.

When ordering specify base, candle power, voltage and type of lamp desired.

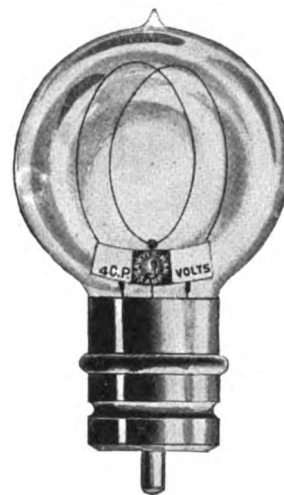
| Candle power. | Less than bbl. lots. | Bbl. lots. |
|---------------------|----------------------|------------|
| 8, 10, 16, 25 | \$0.22 | \$0.20 |
| 32 | .35 | .30 |
| 50 | .55 | .50 |
| 100 | 1.10 | 1.00 |
| 150 | 1.65 | 1.50 |

SAWYER-MAN ROUND BULB DECORATIVE OR SIGN LAMPS.

Furnished regularly in voltage 40 to 60, 90 to 130. Dia. of bulb, $2\frac{5}{16}$ inches.

Length over all excluding tips.

| | Less than bbl. lots. | Bbl. lots. |
|---|----------------------|------------|
| 8 and 10 C. P., $3\frac{3}{8}$ or $3\frac{7}{8}$ inches, as specified | \$0.28 | \$0.25 |
| 16 C. P., $3\frac{3}{8}$ or $4\frac{1}{8}$ " " | .28 | .25 |



SAWYER-MAN SPECIAL DECORATIVE SIGN LAMP.

Type 6. Voltage, 90 to 130.

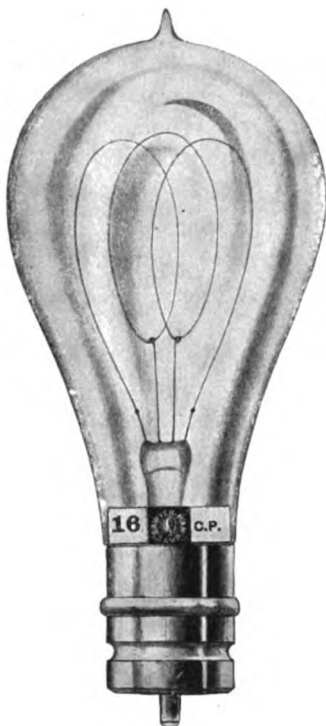
Length over all excluding tips, $3\frac{3}{8}$ in. Greatest diameter, $1\frac{1}{8}$ in.

The bases of these lamps are shellaced, rendering them moisture-proof.

| | Less than bbl. lots. | Bbl. lots. |
|--|----------------------|------------|
| 4 C. P., consuming from 25 to 30 Watts | \$0.23 | \$0.21 |
| 6 C. P., " " " " | .23 | .21 |

INCANDESCENT LIGHT SUPPLIES.

SAWYER-MAN INCANDESCENT LAMPS.



220 volt type.

Furnished regularly for voltage 220 to 250. Efficiency all sizes 4 watts per candle. Coiled and triple anchored filament, permitting use of lamp in any position without drooping and distortion.

All lamps of this type are also furnished with a glass shield inside the lamp, mounted between the leading-in wires, preventing any possibility whatever of short-circuiting at this point.

DIMENSIONS.

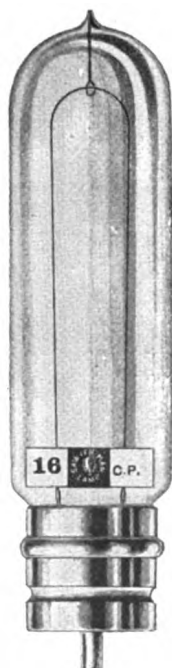
- 10 C. P. Same size as in standard voltages.
 16 " Length over all excluding tips $5\frac{1}{2}$ in., diameter $2\frac{1}{2}$ in.
 32 and 50 C. P. Same size as in standard voltages.

| 200 to 250 Volts. | Less than bbl. lots. | Bbl. lots. |
|----------------------|----------------------|------------|
| 10 and 16 C. P. | \$0.28 | \$0.25 |
| 32 C. P. | .45 | .40 |
| 50 " | .75 | .70 |

CANDLE LAMPS.

Furnished regularly in standard voltages. Diameter, $1\frac{1}{4}$ inches. Length over all excluding tips 8 and 10 C. P., all voltages, and 16 C. P. 50 volt, $4\frac{1}{4}$ inches. 16 C. P. 100 volt and 32 C. P., all voltages, 6 in. Efficiency 50 volt type, 3.5 watts per candle. 100 volt, 4 watts per candle.

| | Less than bbl. lots. | Bbl. lots. |
|---------------------|----------------------|------------|
| 8 and 10 C. P. | \$0.32 | \$0.30 |
| 16 C. P. | .32 | .30 |



Candle lamp.

ALTERNATING SERIES STREET LAMPS.

16, 20, 25, 32, C. P., carefully selected for series burning. In ordering give candle power desired, the number of lamps to be run in series and the potential of the circuit.

| | Less than bbl. lots. | Bbl. lots. |
|---------------------|----------------------|------------|
| 16 to 25 C. P. | \$0.22 | \$0.20 |
| 32 C. P. | .35 | .30 |

INCANDESCENT LIGHT SUPPLIES.

MINIATURE INCANDESCENT LAMPS.

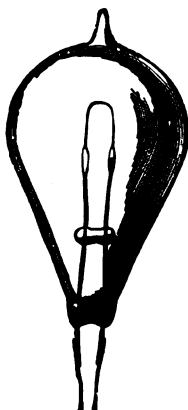
Lamps for Battery Use.



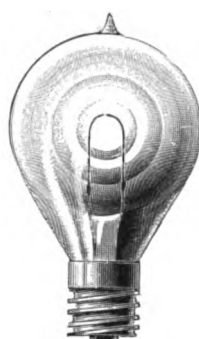
Cat. No. 12.



Cat. No. 14.



Cat. No. 15.



Cat. No. 20.



Cat. No. 22.



Cat. No. 24.



Cat. No. 26



Cat. No. 28.

Special Dental. Pea Lamp.
(Side Seal.)

NOTE: The illustrations show actual size of lamps.



Cat. No. 30.

Bicycle Lamps.

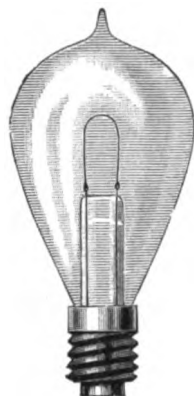
These lamps are regular in voltage, brilliancy and life, being made as carefully and submitted to the same rigid inspection as large lamps.

PRICE LIST OF LAMPS.

| Cat. Number. | Trade Word. | C. P. | Volts. | Amperes, Approx. | COLOR. | Price Each. |
|--------------|------------------|-------|---------|------------------|--|-------------|
| No. 12. | Obviate..... | 1 | 4 to 6 | 90 to 1.40 | Natural Green or Blue..... | \$0.90 |
| " | Obviate..... | " | " | " | " Ruby..... | 1.00 |
| " | Obviating..... | " | " | " | " Frosted.... | .80 |
| " | Natural..... | " | " | " | " Clear..... | .70 |
| No. 14. | Obviously..... | 3 | 5 to 7 | 1.25 to 2.50 | " Green or Blue..... | .90 |
| " | Obvolute..... | " | " | " | " Ruby..... | 1.00 |
| " | Nature..... | " | " | " | " Frosted..... | 1.80 |
| " | Occulted..... | " | " | " | " Clear..... | .70 |
| No. 15. | Occultness..... | 6 | 9 to 12 | 1.50 to 2.25 | " Green or Blue..... | .90 |
| " | Nectar..... | " | " | " | " Ruby..... | 1.00 |
| " | Occupancy..... | " | " | " | " Frosted..... | .80 |
| " | Occupy..... | " | " | " | " Clear..... | .70 |
| No. 20. | Nebula..... | " | " | 1.5 to 2.25 | " Green or Blue..... Fits socket No. 4 | 1.00 |
| " | Occupying..... | " | " | " | " Ruby..... | 1.10 |
| " | Occur..... | " | " | " | " Frosted..... | .90 |
| " | Occurrent..... | " | " | " | " Clear..... | .80 |
| No. 22. | Ocean..... | 3 | 5 to 7 | 1.25 to 2.5 | " Green or Blue..... | 1.00 |
| " | Oceanic..... | " | " | " | " Ruby..... | 1.10 |
| " | Needle..... | " | " | " | " Frosted..... | .90 |
| " | Octagonal..... | " | " | " | " Clear..... | .80 |
| No. 24. | October..... | 1 | 4 to 6 | .90 to 1.40 | " Green or Blue..... | 1.00 |
| " | Octuple..... | " | " | " | " Ruby..... | 1.10 |
| " | Ocular..... | " | " | " | " Frosted..... | .90 |
| " | Ocularly..... | " | " | " | " Clear..... | .80 |
| No. 26. | Oculate..... | 1/2 | 3 to 5 | .80 to 1.35 | " | .80 |
| No. 30. | Oddly..... | 1 | 4 | 1/2 | " | .80 |
| No. 32. | Oddness..... | 2 | " | .5 | " | .80 |
| No. 33. | Photometry..... | 1 | " | .2 | " | .80 |
| No. 35. | Phrase..... | " | " | .3 | " | .80 |
| No. 37. | Phraseology..... | 3 | " | .7 | " | .80 |
| No. 39. | Phonotypy..... | 6 | 6 | .6 | " | .80 |

INCANDESCENT LIGHT SUPPLIES.

SERIES MINIATURE INCANDESCENT LAMPS.



Catalogue No. 34.

1 or 3 Candle-power.

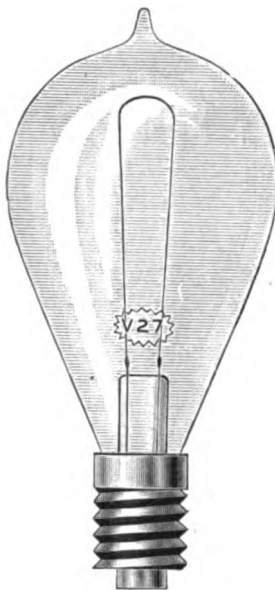
To burn 8 in series on 110 to 120 volts.

To burn 4 in series on 50 to 60 volts.

For sign and decorative work.

Current for each series, 1 C. P. about

.33 amp., 3 C. P. about 1 amp.



Catalogue No. 36.

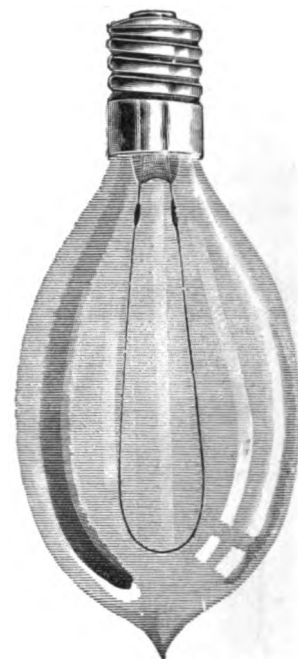
5 Candle-power.

To burn 4 in series on 110 to 120 volts.

To burn 2 in series on 50 to 60 volts.

Current for each series, .55 amp.

These lamps fit Standard miniature receptacle No. 4.



Catalogue No. 38.

8 Candle-power.

To burn 2 in series on 100 to 120 volts.

In multiple on 50-60 volts.

Current for each series .50 amp.

Instructions as to all Series Lamps.

In burning lamps in series, it is of the utmost importance that the amperes of each lamp in any one series should be the same within 3-100 of an ampere.

The voltage of the lamps may vary. The sum of the voltages in any series must equal the voltage of the circuit within three volts.

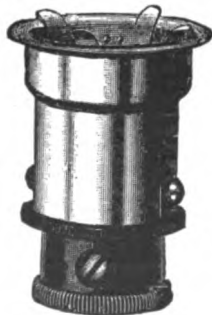
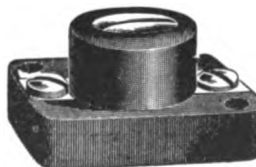
When a lamp which has burned out in a series is to be replaced, only a lamp of the same voltage and amperes as the one to be replaced should be used. In ordering series lamps to replace lamps which have burned out, give both the voltage and amperes of those in use; also voltage of the circuit.

Price List of Lamps.

| Trade Word. | No. | | COLORS. | | | |
|-------------|-----|---------------------|---------|----------------|--------|--------------|
| | | | Clear. | Green or Blue. | Ruby. | Frosted Dip. |
| Quelled. | 33. | 1 Candle-power..... | \$0.80 | \$0.90 | \$1.00 | \$0.90 |
| Chirped. | 34. | 3 "..... | .80 | .90 | 1.00 | .90 |
| Odiously. | 36. | 5 "..... | .90 | 1.10 | 1.30 | 1.00 |
| Quelling. | 38. | 8 "..... | .90 | 1.10 | 1.30 | 1.00 |

When ordering by above list, add the color wanted to the trade word.

MINIATURE SOCKETS AND RECEPTACLES.

No. 3.
Candelabra.No. 1.
Candelabra.

No. 2. Candelabra.



No. 4. Standard Miniature.

| Trade Word. | No. | | Price. |
|-------------|-----|--|--------|
| Odorless. | 1. | Candelabra receptacle.....each | .60 |
| Churned. | 2. | " socket....." | .60 |
| Odorously. | 3. | Shade holder receptacle for miniature series lamps.....each, | 1.50 |
| Claim. | 4. | Standard miniature....." | .60 |

INCANDESCENT LIGHT SUPPLIES.

MINIATURE INCANDESCENT LAMPS.

Series Candelabra Lamps.

Catalogue No. 40.

5 Candle-power, 3 in series; 4 Candle-power, 4 in series,
100 to 125 volts.

Fits receptacles Nos. 1, 2 or 3.

Catalogue No. 42.

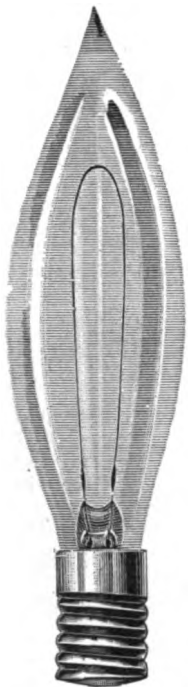
5 Candle-power, 3 in series, 100 to 125 volts.

Fits receptacles Nos. 1, 2 or 3.

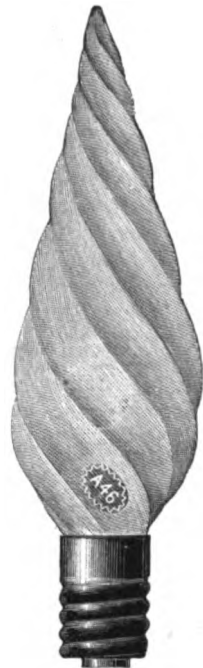
Prices.

| Trade Word. | No. | Clear. | Green or Blue. | Ruby. | Frosted Dip. |
|-------------|--------|--------|----------------|--------|--------------|
| Claimed. | 40.... | \$0.90 | \$1.10 | \$1.30 | \$1.00 |
| Chinned. | 42.... | .90 | | | 1.00 |

When ordering from above list add color wanted to trade word.



Catalogue No. 40.



Catalogue No. 42.
Not made in colors.

Miniature Candelabra Lamps.

For Multiple Circuits.

8 Candle-power, 100 to 120 volt and takes
a current of about .28 ampere.

These lamps are of special value where insurance companies will not permit lamps to be wired in series. They are serviceable in all respects, and being for multiple circuits will aid in overcoming the underwriters' objections to a growing form of decorative lighting.

In ordering these lamps the voltage of circuit should be specified.

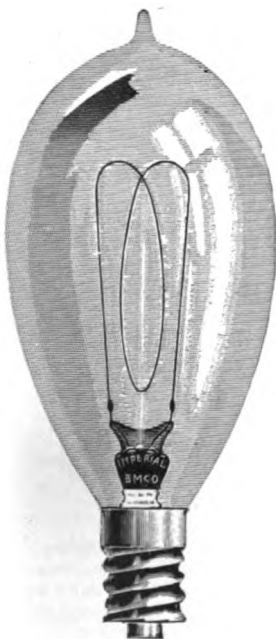
| Trade Word. | Price. |
|--|--------|
| Ointment. Style B, similar in shape to No. 40 series lamp..... | \$0.90 |
| Olden. Style A..... | .90 |
| These lamps will fit receptacles Nos. 1, 2 or 3. | |

Multum in Parvo.

8 volts, 16 candle-power, 2 watts per candle.

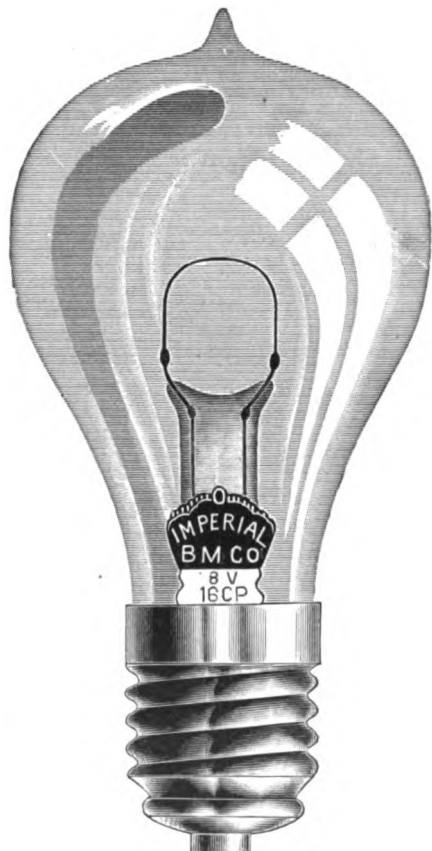
Never successfully imitated. Will fit standard sockets. Special voltages to order.

| Trade Word. | Price. |
|--------------------------------------|--------|
| Clamped. Multum in Parvo lamp, each, | \$3.00 |



Style A.

Miniature Candelabra
Lamps.



Multum in Parvo.

INCANDESCENT LIGHT SUPPLIES.

WARRANT.

These electric heating devices are warranted to be free from imperfections in material or manufacture, and we agree with the purchaser to make good, by repair or replacement within one year from date of shipment, any defect not caused by misuse or neglect, provided the article is returned to the factory prepaid. Therefore communicate with us and secure shipping instructions before forwarding. Do not take the utensil apart, for we cannot be responsible nor replace it. Observe the following:

GENERAL INSTRUCTIONS AS TO INSTALLATION AND USE OF COOKING AND HEATING DEVICES.

In wiring for electric heating and cooking appliances, the capacity of conductors should be the same as for electric lights or motors using the same current.

Installations must be made in accordance with the rules of the Local Board of Underwriters applying to electric light, heat and power.

Our special Chapman Plug, having a capacity of 25 amperes, should be used, and the plugs properly fused. Ordinary attaching plugs for lamp sockets must not be used; nor any appliances connected to a lamp socket, unless expressly specified.

Flexible Conducting Cord furnished with the apparatus should be used. This cord is made expressly for the purpose; is water and fire proof, and has been specifically approved by the Board of Underwriters.

In ordering always state voltage required. All our apparatus will work on either the direct or alternating current.

All articles are marked for the volts required; under no circumstances should the apparatus be used on circuits of different voltage.

In the event of failure of any article to operate properly, notify us, explaining the nature of the failure as you understand it, but do not take the article apart.

When using the cooking utensils, always prepare the food before turning on the electricity; and if the vessel is to hold a liquid, be sure that some liquid is in it before the current is turned on, and that the supply is not exhausted while the utensil is in use.

Never empty a vessel while the current is turned on.

Articles should never be taken apart nor immersed in water, unless intended for that purpose.

Appliances for heating water in which the heating apparatus is enclosed in a coiled copper tube should be always kept supplied with sufficient water to cover the coil.

Always turn the current off when the apparatus is not in use. As this rule is observed, it is cheaper or dearer than coal.

Suspend the conducting cords of laundry irons by spiral springs or rubber bands over the work-tables. This will keep the wires away from the work. Smoothing irons heat rapidly when on the stand with the current on. Don't pull the utensils around by the connecting cords.

Smoothing irons, portable stoves and similar apparatus require from four to ten minutes to heat to their working temperature. Devices for boiling, such as tea kettles, chafing dishes, farina boilers, glue pots, etc., require from ten to twenty minutes to boil. Large urns, from thirty to forty minutes.

CURLING-IRON HEATER.



This curling-iron heater is one of the most artistic electrical novelties made. It consists of a nickel-plated barrel, with oxidized copper side and end ornaments, mounted on a polished and enameled slate base with beveled edges. It is 4¼ inches long by 1½ inches high, and will consume the same amount of current as one 16 C. P. lamp on 50 or 110 volts, making it practicable to use with a plug in any incandescent lamp socket. It is provided with automatic switch, which turns current on when iron is inserted and cuts off when iron is withdrawn. Wound for 50 or 110 volts, direct or alternating current.

Trade Word.

Halving. With cord attached, white finish; polished marbled base.....\$3.00

INCANDESCENT LIGHT SUPPLIES.



"FIVE O'CLOCK TEA."

With this very handsome combination one can complete the furnishing of a tea table in keeping with its dainty silver, china and linen. The silent electric current quickly supplies the necessary heat without the use of alcohol, matches or flame, and also provides a stove (when the kettle is removed) on which to warm the wafers or crackers. It is artistic in design, highly finished in silver or nickel plate. Made for any electric lighting circuit. In ordering, state voltage of circuit. Connect to circuit with Chapman receptacle and plug.

| Trade Word. | No. | | Price. |
|-------------|------|---|----------|
| Hampered. | 872. | One quart, nickel plated, 4 amperes at 110 volts..... | \$ 15.00 |
| Hampering. | 873. | One quart, silver plated, 4 amperes at 110 volts..... | 20.00 |

TEA KETTLES.

Tea kettles with heater contained in kettle are made in two sizes, two quarts and four quarts respectively, of copper, nickel plated, with hardwood handles, and of conventional patterns.

| Trade Word. | No. | | Price. |
|-------------|------|--|---------|
| Racing. | 851. | Two quarts, amperes at 110 volts, 4..... | \$12.50 |
| Raceme. | 853. | Four " " " " 7..... | 14.00 |

FARINA BOILER.

The outer vessel is of heavy copper, nickel plated, the inner being made entirely of porcelain; the heating coil (also nickeled) is placed in a water bath surrounding the porcelain pot in which the cooking is done. The construction is such that all parts are easily separated, as shown in the illustration.

It is so designed that three divisions of heat may be obtained—the maximum to quickly heat up



the vessel, a less amount to do the cooking, and a still less amount to keep the contents of the vessel warm. Made for direct or alternating current, the usual voltages used for lighting. Connect to circuit with Chapman receptacle and plug.



| Trade Word. | No. | | Price. |
|-------------|------|---|---------|
| Hamstring. | 353. | One quart, three heats, 4, 2, 1 amperes at 110 volts..... | \$12.00 |
| Hanaper. | 354. | Two quarts, " 6, 3, 2 " " " " | 13.50 |

INCANDESCENT LIGHT SUPPLIES.

ELECTRIC GLUE POT.

No fire, no smoke, no dirt, no gases, no danger.

Note the following points:

This Glue Pot is made of burnished copper and is very durable.

The water bath is heated by an electrical device, ensuring a constant and even heat.

This device is removable, and being placed directly in the water uses the heat generated to its best advantage.

The bath contains a relatively small amount of water, which is automatically replenished from a reservoir. Thus no energy is lost in uselessly heating a large supply of water.

The reservoir surrounding the pot not only acts as a jacket to prevent too great radiation, but utilizes a part of this radiation in warming the water supply.

Absolutely no fire risk, as with pots heated by gas or gasoline.

Pots are made for 52, 100 or 110 volt circuits, either direct or alternating. The current required for a quart pot is 2 amperes on a 110-volt circuit.

The economy of using this form of glue pot will be readily seen, particularly where there are individual power plants, in which case the cost of the current will be nominal. Connect to circuit with Chapman plug and receptacle.

DIRECTIONS.

The apparatus is shipped assembled and ready for use, except that the water must be added. To do this, remove the screw cap on top of reservoir and fill the latter. Replace screw cap, being careful to screw home tight, so as to prevent air from entering. The pot is then ready to be heated. Always see that the reservoir is filled before turning on the current, for if it is not the glue will burn and the device be ruined. The reservoir contains enough water for at least five hours' continuous use. It will take about thirty minutes to heat the glue, starting with everything cold. With each glue pot is shipped six feet of flexible conductor cord, attached to the heater. If so ordered, the glue pot will be shipped with plug switch complete, ready for attachment.

| Trade Word. | No. | | | | Price. |
|-------------|------|-----------|------------------------------|-------|---------|
| Happily. | 403. | 1 pint, | 1.5 Amperes at 110 volts.... | each, | \$13.00 |
| Happiness. | 404. | 1 quart, | 2 " " " | " | 14.00 |
| Happy. | 405. | 2 quarts, | 3 " " " | " | 16.00 |
| Harangue. | 406. | 1 gallon, | 5 " " " | " | 18.00 |

Other sizes to order. State voltage when ordering.

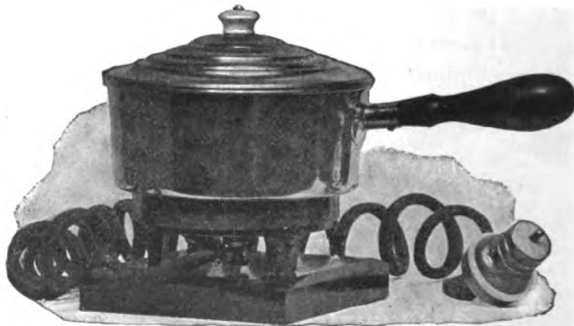
In addition to the special glue pot shown in cut, we also furnish them without the reservoir. The entire pot is of heavy copper with coiled copper heater, being in every way as substantial and durable as is possible to construct such a device. With this pot, it requires from 16 to 20 minutes to have the glue ready for use, starting with everything cold. Much less time is required for the special type but in no other particular are they superior, while the price is less. In all glue pots, the minimum current is sufficient to maintain the glue in proper condition for work.

| | | Amperes at 110 volts. | | | Price. |
|-------------|----------|-----------------------|------|------|---------------|
| Trade Word. | No. | Max. | Med. | Min. | |
| Racer. | No. 407. | 1 pint, | 4 | 2 | 1 |
| Rack. | No. 408. | 1 quart, | 6 | 3 | 1½ |
| Racket. | No. 409. | 2 quarts, | 8 | 4 | 2 |
| | | | | | each, \$10.00 |
| | | | | | " 11.00 |
| | | | | | " 12.50 |

ELECTRIC STEW PAN.

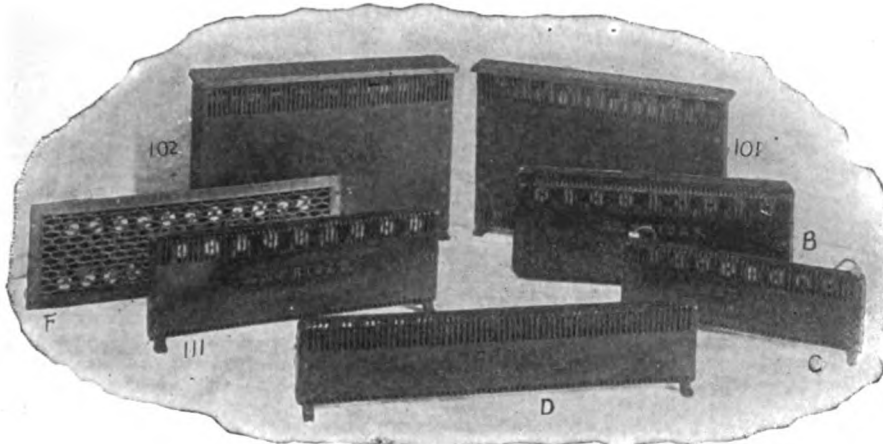
The heater consists of a 4¼ inch disk, to which is fitted an aluminum (removable) stew pan, with capacity of three-fourths of a quart. Just the thing to use in light housekeeping, exactly what is wanted in a physician's office, drug store, hospital, the nursery, or where a little food is to be cooked, a hot drink made or hot water used. Connects to any lamp socket. Packed complete, with cord and plug. In ordering, state style of socket used and voltage of circuit.

| Trade Word. | No. | | | Price. |
|-------------|-------|-------------------------------|------------------------------|--------|
| Hamble. | 1720. | Heater and aluminum stew pan, | 2 amperes at 110 volts | \$5.00 |



INCANDESCENT LIGHT SUPPLIES.

ELECTRIC AIR HEATERS.



The heaters are perfectly clean, do not vitiate the atmosphere, and are portable. No definite rule can be given to determine the amount of electricity necessary for heating a given space, though approximate estimates can be made by allowing from one to two watts for each cubic foot of air space to be heated. The latter amount for well constructed buildings in cold weather, or for quickly heating a bath-room.

The heaters shown are finished in black japan, gold bronze, or white enamel, *as ordered*, and are usually arranged to give three different adjustments of heat. They are made for any circuit. State whether for direct or alternating, and voltage, when ordering.

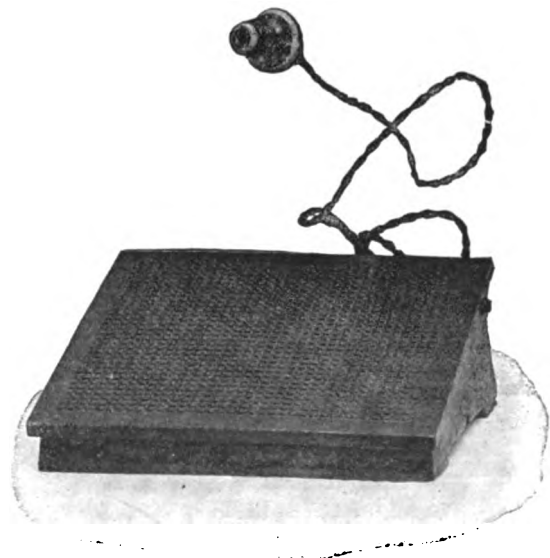
| Trade Word. | | | | | | Maximum Watt Capacity. | Price Each. |
|-------------|----------|-----------------------------|-----------------------------|--|--|------------------------|-------------|
| Hebraic | No. 101. | Length 26 inches, height 22 | inches, width 2 inches..... | | | 2,000 | \$25.00 |
| Hebraism. | No. 102. | " 26 " " 22 | " " 4 " | | | 4,000 | 30.00 |
| Hebraistic. | No. 103. | " 26 " " 22 | " " 7 " | | | 6,000 | 45.00 |
| Hebraize. | No. 111. | " 26 " " 10½ | " " 2 " | | | 1,200 | 15.00 |
| Hebraized. | No. 112. | " 26 " " 10½ | " " 4 " | | | 2,400 | 20.00 |
| Hebrew. | No. 113. | " 26 " " 10½ | " " 7 " | | | 3,500 | 30.00 |
| Hebrewess. | No. 114. | " 26 " " 10½ | " " 10 " | | | 4,500 | 40.00 |

White enamel, \$10.00 extra. Other special finish can be made to order.

ELECTRIC FOOT WARMER.

Made of cast iron in form to constitute a most comfortable foot rest. It is finished in black japan, and is guaranteed to last for many years. It may be left in circuit indefinitely without injury. We pack them complete, with cord and plug, ready to connect to lamp socket. The current required is the same as for the usual 16 C. P. lamp.

State voltage and kind of socket when ordering. Can be used on either direct or alternating circuits.



| Trade Word. | | Price. |
|-------------|---|--------|
| Hatch. | No. 1371. Foot warmer, size 9x12, 4-10 amperes at 110 volts..... | \$6.00 |

INCANDESCENT LIGHT SUPPLIES.

ELECTRIC CHAFING DISH.

The electric chafing dish requires no alcohol, but is always ready for use. It is furnished in a graceful pattern, in the conventional form, of spun copper, highly finished in silver or nickel. Adapted to any lighting circuit. State voltage when ordering. Connect to circuit with Chapman receptacle and plug.



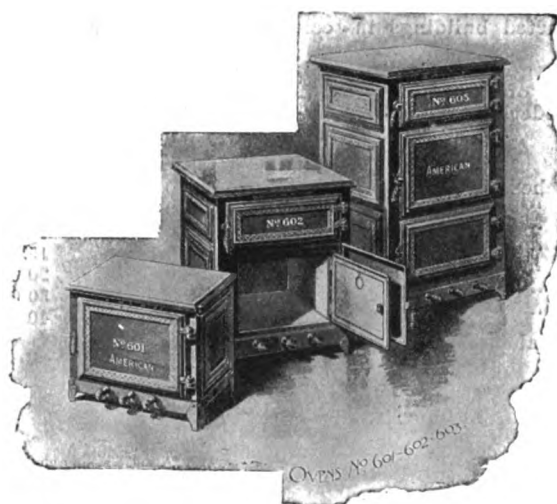
| Trade Word. | No. | | Price. |
|-------------|------|--|---------|
| Hamlet. | 203. | Two quarts, nickel-plated, 4 amperes at 110 volts..... | \$15.00 |
| Hamper. | 204. | Two quarts, silver-plated, 4 amperes at 110 volts..... | 20.00 |

THE ELECTRIC BROILER.

The electric broiler is made entirely of cast iron, is light, easily portable, and superior to any heretofore made. It is ready for use in four minutes after current is turned on, and will broil "to a turn" in from 10 to 15 minutes (according to thickness) one or two porterhouse steaks or four to six chops. Made for 50 or 110 volts.

| Trade Word. | No. | | Price. |
|-------------|-------|--|---------|
| Racking. | 1184. | Broiler, size 9 x 12 inches, 12 amperes, at 110 volts..... | \$15.00 |

ELECTRIC OVEN.



Meats roasted in these ovens have all the qualities that meats roasted in front of a fire have, and do not require basting or watching. They are cooked more evenly and in less time, while retaining a large percentage of the nutritious juices. After the exact time required for cooking any viand has been once ascertained, it can be put in the oven and left there for the proper time without further attention. As a bread baker, it is far more efficient than present methods.

These ovens give a steadier and more effective heat, and do their work more perfectly in every way than the ordinary range oven. The degree of heat can be readily adjusted to the work, and the "quick" or "slow" oven obtained with certainty whenever required.

Ovens are made in three sizes. The smallest size with one compartment, 13 inches wide, 18 inches deep and 9 inches high, arranged for two different degrees of heat.

The next larger with the same sized compartment, but with an additional compartment of the same width and depth and four inches high for keeping articles warm or for slow baking. The largest size has an additional cooking chamber 7 inches high with one heat.

| Trade Word. | No. | | Price. |
|-------------|------|---|---------|
| Radial. | 601. | One compartment, three heats, amperes, at 110 volts, maximum, 13..... | \$50.00 |
| Radiance. | 602. | Two compartments, three heats, amperes, at 110 volts, maximum, 13..... | 65.00 |
| Radiant. | 603. | Three compartments, three heats, amperes, at 110 volts, maximum, first compartment, 13, second compartment, 10..... | 80.00 |

COFFEE POTS.

No. 1722 coffee pot is of the French type, made very substantially of heavy "block tin," with copper bottom. One quart capacity. It is removable, leaving the heater available for heating other vessels, toasting, etc. It is sent complete, with cord and plug, ready to attach to any lamp socket.

| Trade Word. | No. | | Price. |
|-------------|-------|--|--------|
| Rafter. | 1722. | Coffee pot and heater, 2 amperes at 110 volts..... | \$7.50 |

In addition to above we make a coffee pot of copper, nickel-plated, of the French type, similar to above, except that the coffee pot proper is immersed in a hot water bath and the water is kept hot by an electric coil heater. Unlike the one described above, the heater cannot be used as a stove, but can be applied as a cooker for oatmeal, etc., by the addition of another vessel.

| Trade Word. | No. | | Price. |
|-------------|------|---|---------|
| Rag. | 256. | Coffee pot, complete, with coil, 1 quart, 4 amperes at 110 volts..... | \$13.00 |

INCANDESCENT LIGHT SUPPLIES.

PORTABLE STOVE NO. 1701.

This electric stove is $4\frac{1}{4}$ inches in diameter, mounted on enameled slate base and has five feet of flexible cord attached, with plug connection for lamp socket. The stove is "hot" in about two minutes from the time current is turned on. There is nothing better or more convenient for warming the baby's milk, boiling an egg, or quickly making a hot drink of any kind. Just the thing for a physician's office.

The current required is 2 amperes at 110 volts. Made for 50, 100 and 110 volts, direct or alternating current. In ordering, state style of socket used and voltage of circuit.



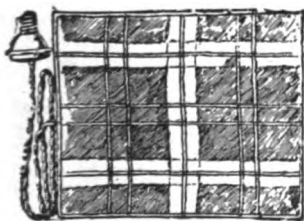
| Trade Word. | No. | Price. |
|-------------|--|--------------|
| Ham. | 1701. Complete, ready for use..... | each, \$4.00 |
| Radiate. | 1702. 6 inches in diameter, without plug, should not be connected to lamp socket, same finish as 1701, uses 4 amperes, on 110 volts..... | each, \$6.00 |
| Radiation. | 1723. An aluminum "Blazer" for use with 1702 stove. The two make a complete chafing dish | " 1.50 |
| Radiator. | 1703. 7 inches diameter with cord same as 1702, uses 5 amperes on 110 volts | " 7.00 |
| Radical. | 1704. 8 inches diameter with cord same as 1702, uses $7\frac{1}{2}$ amperes on 110 volts | " 10.00 |

Stoves with Switches for Three Heats.

| | | |
|-------------|---|---------|
| Radicalism. | 1731. $4\frac{1}{4}$ inches diameter, same as 1701 and arranged to operate at three different temperatures, maximum current 200 watts. | " 6.00 |
| Radically. | 1732. 6 inches diameter, same as 1702 and arranged to operate at three different temperatures, maximum current 440 watts..... | " 8.50 |
| Radicate. | 1733. 7 inches diameter, same as 1702 and arranged to operate at three different temperatures, maximum current 550 watts..... | " 10.50 |
| Radication. | 1734. 8 inches diameter, same as 1702 and arranged to operate at three different temperatures, maximum current 800 watts..... | " 13.50 |

State kind of socket and voltage when ordering.

ELECTRIC HEATING PAD.



The perfection of this device is a very important step in electrical development. By its use heat may be applied in an ideal way to the body. In form it is similar to that of a piece of thick, soft felt, being light (weighing but a few ounces). It is always ready for use wherever electric lights are used, costs very little to operate, is so constructed that it will last for many years. Its great value in the hospital and cases where hot applications are necessary to sustain life is evident. It is extremely useful as a foot warmer for invalids or elderly people, and operates on any incandescent lighting circuit. State voltage and kind of lamp socket when ordering. By mail or express at the price mentioned.

| Trade Word. | No. | Price. |
|-------------|--|--------|
| Handcuff. | 681. 12 x 15 inches, complete, with cord and plug, 4-10 ampere at 110 volts..... | \$5.00 |

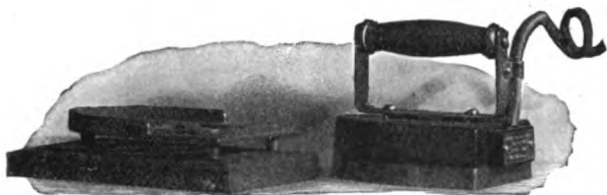
ELECTRIC SOLDER POT.

There are many needs for small quantities of melted solder, babbitt metal, and similar alloys which heretofore have required the use of charcoal, gasoline or gas furnaces, which are not only dangerous and dirty but are difficult to maintain at a temperature where the least amount of oxide is formed and yet have the metal in a proper state for use. The electrically heated pots are arranged so that in starting, the metal can be quickly melted, then the current reduced to maintain a uniform temperature at any suitable point. Made for 50, 100 and 110 volt currents.

| Trade Word. | No. | Price. |
|-------------|---|--------------|
| Radius. | 1718. Solder pot. 4 lbs. capacity can be operated from lamp socket. Low heat (working temperature) 100 watts, medium, 150 watts, maximum (for quick heating) 200 watts; with cord and plug..... | each, \$8.00 |
| Raffle. | 1719. Solder pot. 10 lbs. capacity should not be operated from lamp sockets; sent complete with cord no plug; low heat (cooking temperature) 200 watts, medium 300 watts, maximum (for quick heating) 400 watts | " 12.00 |

INCANDESCENT LIGHT SUPPLIES.

ELECTRIC SMOOTHING IRONS.



Can be had in all sizes, from the three pound sewing-room iron to the largest tailor's goose. The small silk hat iron is very useful—connects to any lamp socket.

Just what is wanted in the coat-room of every club house.

We call particular attention to the "Small Seaming Iron, No. 1502," for apartment house use, as it is specially suitable for laces, handkerchiefs and all similar light goods. Can be attached to any lamp socket. (State kind of socket used).

Each iron is supplied with a suitable stand on a slate base; also five feet of duplex conductor. For additional length add 15 cents per foot to cost of iron. 50—100 or 110 volts as required.

| Trade Word. | No. | | Amperes at 110 volts. | Price. | Price. With automatic Cut-out. |
|-------------|-------|---|--------------------------|--------|--------------------------------------|
| Ragged. | 1501. | Troy polishing..... | 3 | \$6.00 | \$ 8 50 |
| Rage. | 1502. | Small seaming (can be connected to lamp socket) | 2 | 5.00 | 7.50 |
| Ragout. | 1503. | Small silk hat iron..... | 2 | 6.00 | |
| Raid. | 1504. | 6½ pounds, light domestic..... | 4 | 7.00 | 9.50 |
| Railer. | 1505. | 7½ " domestic..... | 5 | 7.50 | 10.00 |
| Railing. | 1506. | 9 " heavy laundry..... | 5 or 6 | 8.00 | 10.50 |
| Raillery. | 1507. | 9 " special hatters..... | 5 | 9.00 | 11.00 |
| Railroad. | 1508. | 9 " " corset..... | 4½ | 9.00 | 11.00 |

Irons with automatic cut-outs are desirable as they operate to stop the flow of current if the iron is carelessly left by the operator; are also useful to regulate the temperature while at work.

ELECTRIC VULCANIZER.

Made for repairing bicycle tires. As is well known exact, uniform temperatures are absolutely essential in work of this character, and this is perfectly accomplished with the electric machine. A rheostat is a part of the machine, enabling the most accurate control of the temperature to be obtained. Other devices using steam, gas or naphtha, are not only unreliable, and, in consequence, destructive of tires, but positively dangerous, and condemned by the insurance inspectors. Absolutely the only safe vulcanizer to use for this work.

| Trade Word. | Price. |
|---|---------|
| Railway. Repair shop size, 3 amperes, at 110 volts..... | \$25.00 |



FLEXIBLE CORD.

Our twin conductor cord, manufactured under letters patent, is specially made for the purpose, and has been passed upon and approved by the Board of Underwriters. Made up of No. 34 B & S.G. wires, braided together in proper gauge, fire-proof insulation.

| Trade Word. | No. | | Price. |
|-------------|------|-------------------------|--------|
| Raiment. | 921. | 16 gauge, per foot..... | \$0.20 |
| Rain. | 922. | 14 " "..... | .24 |
| Rained. | 923. | 12 " "..... | .28 |
| Raining. | 924. | 10 " "..... | .30 |

INCANDESCENT LIGHT SUPPLIES.

ELECTRIC SOLDERING IRONS.

The only iron giving a constant heat that is sufficient to do the work required. The copper tips are interchangeable so that any size or shape can be used on the same iron. The irons are made in four sizes for use on any voltage up to 250 volts on either alternating or direct currents. Every iron warranted.



No. 2 Soldering Iron.

For light work.

| | |
|---|---------------|
| Trade Word. | Price. |
| Rabble. Weight 1 lb. 6 oz., .....each, | \$7.00 |



No. 2 Soldering Iron.

| | |
|---|---------------|
| Trade Word. | Price. |
| Rabid. Weight 1 lb. 10 oz. ....each, | \$7.00 |



No. 3 Soldering Iron.

| | |
|---|---------------|
| Trade Word. | Price. |
| Raccoon. Weight 2 lbs. 8 oz. ....each, | \$8.00 |



No. 4 Soldering Iron.

| | |
|--|---------------|
| Trade Word. | Price. |
| Race. Weight 4 lbs. 4 oz. ....each, | \$11.00 |

INCANDESCENT LIGHT SUPPLIES.



"C. E. CO." TESTED FUSE WIRE.

We take great pleasure in placing before our customers a correct system of tested fuse wire. This has been attained only by much time and labor; we feel positive of the absolute reliability of our fuse wire and tables.

This tested fuse wire is designed to protect a circuit up to 1000 volts.

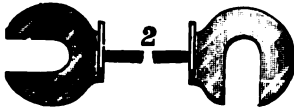
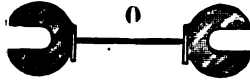
PRICE LIST.

| Trade Word. | Safe Carrying Capacity, Amperes. | Best Lengths for Use and Fusing Points for such Lengths. | | Length per lb. | | Weight per 100 ft. | | Price per lb. | Price per ft. |
|-----------------|----------------------------------|--|----------------|----------------|-----|--------------------|----------------|---------------|----------------------|
| | | Inches. | Amperes. | Ft. | In. | Lbs. | Oz. | | |
| Quail..... | $\frac{1}{4}$ | 1 | $\frac{3}{4}$ | | | | | | \$0.00 $\frac{1}{2}$ |
| Amid..... | $\frac{1}{2}$ | 1 | $1\frac{1}{2}$ | | | | | \$3.20 | .00 $\frac{1}{2}$ |
| Quaint..... | $\frac{3}{4}$ | 1 | $2\frac{1}{2}$ | | | | | 2.00 | .00 $\frac{1}{2}$ |
| Amidships..... | 1 | $1\frac{1}{4}$ | 3 | 1025 | | | $1\frac{1}{2}$ | .80 | .00 $\frac{1}{2}$ |
| Amiss..... | 2 | $1\frac{1}{2}$ | 5 | 680 | | | 3 | .80 | .00 $\frac{1}{4}$ |
| Ammunition..... | 3 | $1\frac{1}{2}$ | 7 | 445 | | | 5 | .80 | .01 |
| Amnesty..... | 4 | $1\frac{3}{4}$ | 9 | 290 | | | 7 | .75 | .01 |
| Among..... | 5 | $1\frac{3}{4}$ | 10 | 168 | | | 9 | .75 | .01 $\frac{1}{2}$ |
| Amorous..... | 6 | 2 | 12 | 145 | | | 11 | .75 | .01 $\frac{1}{2}$ |
| Amount..... | 7 | 2 | 13 | 122 | | | 13 | .75 | .01 $\frac{1}{2}$ |
| Amounting..... | 8 | 2 | 15 | 105 | | | 15 | .70 | .01 $\frac{3}{4}$ |
| Quaintly..... | 9 | 2 | 16 | 92 | | 1 | 1 | .70 | .01 $\frac{3}{4}$ |
| Ample..... | 10 | $2\frac{1}{4}$ | 17 | 82 | | 1 | 3 | .70 | .01 $\frac{3}{4}$ |
| Amplify..... | 12 | $2\frac{1}{2}$ | 20 | 66 | | 1 | 8 | .70 | .02 |
| Amplify..... | 14 | $2\frac{1}{2}$ | 23 | 56 | | 1 | 13 | .70 | .02 |
| Amputate..... | 15 | $2\frac{1}{2}$ | 24 | 53 | | 1 | 15 | .70 | .02 $\frac{1}{2}$ |
| Amulet..... | 16 | $2\frac{1}{2}$ | 25 | 47 | 6 | 2 | 2 | .70 | .02 $\frac{1}{2}$ |
| Quaintness..... | 18 | $2\frac{1}{2}$ | 28 | 42 | | 2 | 6 | .70 | .03 |
| Amusement..... | 20 | $2\frac{1}{2}$ | 30 | 37 | 4 | 2 | 11 | .70 | .03 |
| Amusing..... | 25 | $2\frac{3}{4}$ | 37 | 28 | 4 | 3 | 9 | .70 | .04 |
| Anigram..... | 30 | $2\frac{3}{4}$ | 43 | 23 | 8 | 4 | 3 | .70 | .05 |
| Analogy..... | 35 | 3 | 49 | 19 | 10 | 5 | 1 | .60 | .05 |
| Analyze..... | 40 | 3 | 56 | 17 | | 5 | 14 | .60 | .06 |
| Quake..... | 45 | 3 | 62 | 15 | | 6 | 7 | .60 | .07 |
| Anarchist..... | 50 | 3 | 69 | 13 | 7 | 7 | 5 | .60 | .08 |
| Anarchy..... | 60 | $3\frac{1}{4}$ | 81 | 10 | 6 | 9 | 11 | .50 | .08 |
| Anatomist..... | 70 | $3\frac{1}{4}$ | 93 | 9 | | 11 | 2 | .50 | .09 |
| Anatomy..... | 75 | $3\frac{1}{2}$ | 99 | 7 | 10 | 12 | 12 | .50 | .09 |
| Anatron..... | 80 | $3\frac{1}{2}$ | 106 | 7 | 2 | 13 | 14 | .50 | .10 |
| Quaked..... | 90 | $3\frac{1}{2}$ | 118 | 6 | | 16 | | .50 | .10 |
| Ancestor..... | 100 | 4 | 129 | 5 | | 19 | 12 | .50 | .12 |
| Ancestral..... | 125 | $4\frac{1}{4}$ | 158 | 3 | 10 | 26 | | .50 | .15 |
| Ancestry..... | 150 | $4\frac{1}{4}$ | 187 | 3 | | 32 | 12 | .50 | .20 |
| Anchor..... | 175 | $4\frac{1}{2}$ | 215 | 2 | 6 | 39 | 8 | .50 | .25 |
| Quaking..... | 200 | $4\frac{3}{4}$ | 243 | 2 | 2 | 46 | | .50 | .30 |

INCANDESCENT LIGHT SUPPLIES.

COPPER TERMINAL FUSES.

Terminals are shown full size.

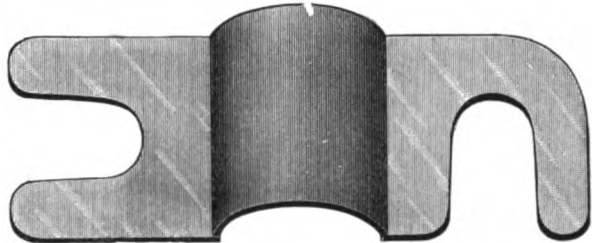
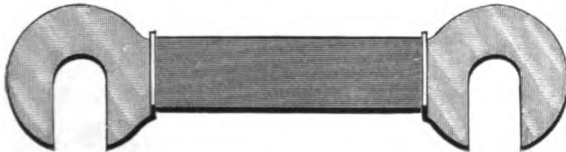
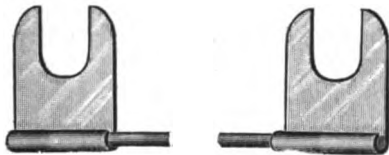


| | | | | | | | |
|--------------------|----|------------|-----------------|----------|-----------|--------------|---------------|
| Trade Word. | To | 15 Ampere, | No. 0 Terminal, | 1 inch C | to C..... | per hundred, | Price. |
| Quality. | " | 15 | " " 2 | " 1½" | " " | " | \$2.00 |
| Qualified. | " | 15 | " " 2 | " 1½" | " " | " | 2.00 |
| Quality. | " | 100 | " " 3 | " 1½" | " " | " | 3.00 |

Above are Edison style

| | | | | | | | | | | |
|-----------|----|-----|---------|-------|-----------|-------|-------|-------------|--------------|--------|
| Qualm. | To | 15 | Ampere, | No. 2 | Terminal, | 2 1/4 | inch | C to C..... | per hundred, | \$4.00 |
| Qualmish. | " | 25 | " | " | 3 | " | 2 1/2 | " | " | 4.00 |
| Quandary. | " | 100 | " | " | 5 | " | 2 1/2 | " | " | 5.00 |

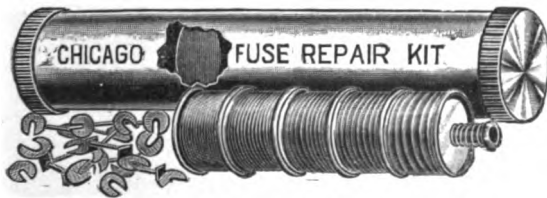
Above are S -M. style.



| | NO. 5 Flat. | | | | | | NO. 10. | | | | | | Price. |
|--------------|-------------|------------|--------|----------------|------------------|---------------------|--------------|----|------|---|---|---|--------|
| Trade Word. | To | 50 Ampere, | No. 12 | Terminal T -H. | railway fuse, | 2¼ inch C to C | per hundred, | \$ | 4.00 | | | | |
| Quantity. | " | 100 | " | " | " | " | " | " | " | " | " | " | " |
| Quantum. | " | 150 | " | " | " | " | " | " | " | " | " | " | 5.00 |
| Quarantine. | " | 100 | " | " | " | " | " | " | " | " | " | " | 6.00 |
| Quarrel. | " | 100 | " | " | 5 Flat Terminal, | 2¼ inch C to C..... | " | " | " | " | " | " | 8.00 |
| Quarrelsoms. | " | 200 | " | " | 5 " " | 2¼ " " | " | " | " | " | " | " | 10.00 |
| Quarry. | " | 100 | " | " | 16 Terminal, | 2¼ inch C to C..... | " | " | " | " | " | " | 10.00 |
| Quart. | " | 250 | " | " | " | 2¼ " " | " | " | " | " | " | " | 12.00 |
| Quartan. | " | 400 | " | " | " | 2½ " " | " | " | " | " | " | " | 15.00 |
| Quarter. | " | 600 | " | " | " | 2½ " " | " | " | " | " | " | " | 18.00 |

Special fuses any desired length made to order. In ordering give terminal number and distance from center to center of binding screws.

CHICAGO FUSE REPAIR KIT.



The full size is 1¼ inch diameter by 7 inches long.

This outfit contains *five* sizes of *fuse wire*, each on a separate spool; also a good assortment of *fuse links*.

The advantages of the kit for the use of all line men and repair men, will be seen at once, as all breakage of fuse links and abrasion of fuse wire is prevented.

A full assortment may be carried, weighing no more than one ordinary spool of fuse wire.

The case is nicely nickel plated.

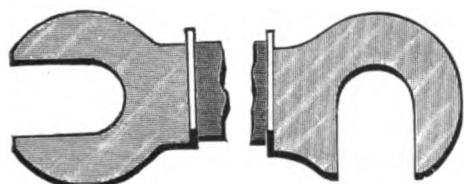
We carry in stock fuse wire on spools to fit the repair kit at ordinary prices of fuse wire.

| | |
|---|--------|
| Trade Word. | Price. |
| Quarterdeck. Fuse kit, complete with five sizes of fuse wire and an assortment of links, net..... | \$2.00 |

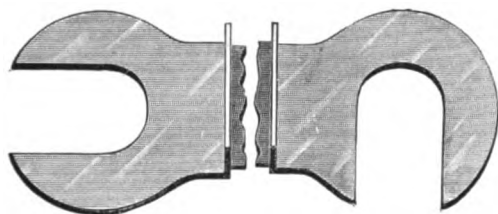
INCANDESCENT LIGHT SUPPLIES.

SPECIAL COPPER TERMINAL FUSE LINKS.

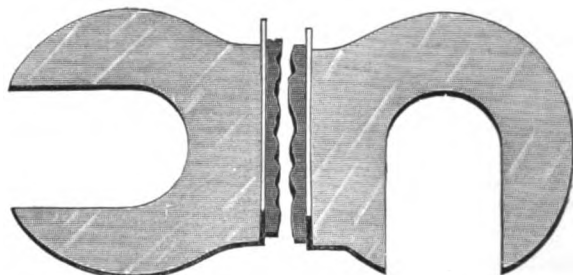
In ordering give terminal number and distance from center to center of binding screws.



No. 7.



No. 8.



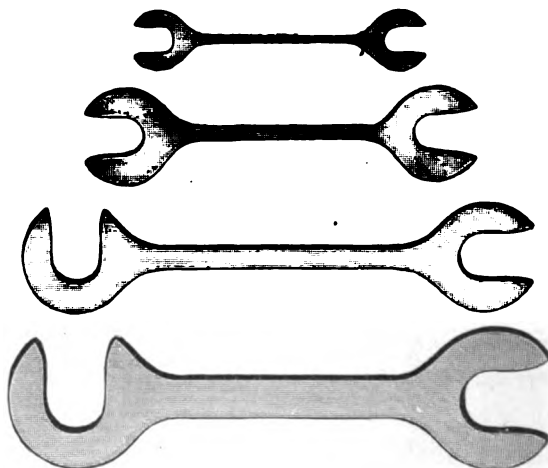
No. 10.

| Trade Word. | Capacity. | Terminals. | To 5 inch C to C. Price. | To 8 inch C to C. Price. |
|-------------|-----------------|-----------------|-----------------------------|-----------------------------|
| Quarterly. | To 100 Amperes. | 7, 8 or 10..... | each, \$0.15 | each, \$0.22 |
| Quartern. | " 250 " | " | " .18 | " .30 |
| Quartette. | " 400 " | " | " .21 | " .36 |
| Quartele. | " 600 " | " | " .24 | " .42 |
| Quarto. | " 800 " | " | " .30 | " Special. |

STAMPED FUSE LINKS.

| Trade Word. | Capacity. | Price. |
|-------------|---------------------------------|---------|
| Quartz. | 1 to 10 Amperes....per hundred, | \$ 2.00 |
| Quaver. | 10 to 50 " | 2.00 |
| Quay. | 50 to 100 " | 3.00 |
| Queachy. | 100 to 150 " | 5.00 |
| Queen. | 150 to 300 " | 10 00 |
| Queasy. | 300 to 500 " | 15.00 |

Our stamped fuses are carefully rated.



FUSE STRIPS WITHOUT TERMINALS.

Furnished 10 inches in length, unless otherwise ordered.

| Trade Word. | Capacity. | Price. | Trade Word. | Capacity. | Price. |
|-------------|---------------------------|--------|-------------|----------------------------|--------|
| Ambrosia. | 25 Amperes.....per pound, | \$0.60 | Ambulation. | 175 Amperes.....per pound, | \$0.50 |
| Ambrosial. | 50 " | .60 | Ambulative. | 200 " | .50 |
| Ambrosian. | 75 " | .60 | Ambulatory. | 250 " | .50 |
| Ambry. | 100 " | .50 | Ambuscade. | 300 " | .50 |
| Ambulant. | 125 " | .50 | Ambuscaded. | 400 " | .50 |
| Ambulate. | 150 " | .50 | Ambushed. | 500 " | .50 |

INCANDESCENT LIGHT SUPPLIES.

VITRO CHROME.

Incandescent lamp coloring.

It is unaffected by damp air, sunlight will not fade the color. Colors are perfectly transparent and will adhere to the lamp indefinitely and does not peel off, crack or blister.

Made in the following colors:

Trade Word.

Othello.....Red.
Owl.....Green.
Naked.....Blue.

8-oz. bottles, each, \$2.00.

Trade Word.

Pace.....Yellow.
Nail.....Amber.
Napkin.....Purple.

16-oz. bottles, each, \$3.50.

ZERO FROST.

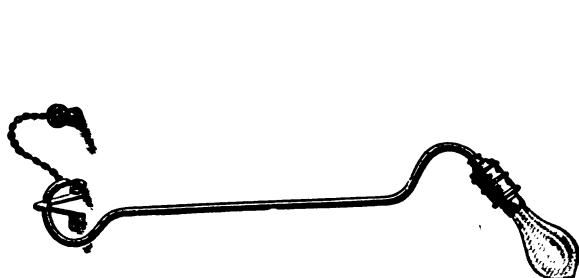
Our zero frost is the only true artificial lamp frost on the market. When lighted, lamps produce a soft mellow light pleasing to the eye.

Trade Word.

| | | |
|-------|------------|--------------|
| Pad. | 8-oz..... | each, \$2.00 |
| Page. | 16-oz..... | “ 3.50 |

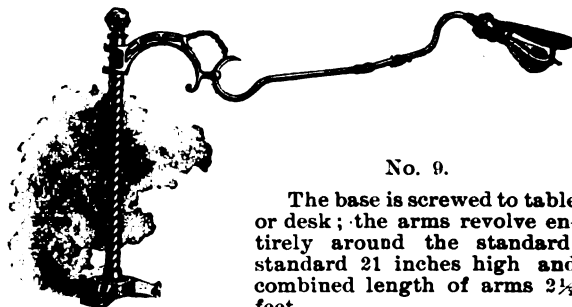
INCANDESCENT LIGHT SUPPLIES.

UNIVERSAL LAMP HOLDERS AND ELECTRIC FIXTURES.



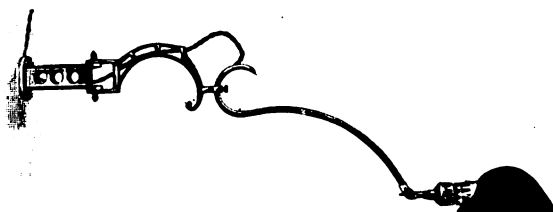
Nos. 1 and 2.

Are single arm holders; the former 16 inches and the latter 24 inches long.



No. 9.

The base is screwed to table or desk; the arms revolve entirely around the standard; standard 21 inches high and combined length of arms 2½ feet.



Nos. 7, 15 and 20

Provided with a hinged inner arm, giving horizontal adjustment, which, with outer arm gives reach of 34 inches; outer arm is also provided with hinge as shown, giving vertical adjustment.



No. 5.

| Trade Word. | No. | | Price. |
|-------------|-----|--|--------|
| Neighbor. | 1. | Single arm holders, 16 in. spread..... | \$0.60 |
| Nephew. | 2. | " " " 24 " | .70 |
| Officer. | 3. | Double arm holder, 24 in. spread | 1.25 |
| Official. | 5. | " " " swivel base, 5 ft. spread..... | 2.40 |
| Officious. | 7. | " " " " " 5 " | 5.00 |
| Offing. | 9. | " " " standard, 2½ ft. spread..... | 4.50 |
| Ogler. | 15. | " " " swivel base, 34 in. spread..... | 3.25 |
| Ogress. | 20. | " " " " " 55 " | 4.50 |

Prices do not include wiring, sockets, shades or lamps.

Above prices are for polished brass finish. Special finishes to order at additional price.

SERIES ARC LIGHT SUPPLIES.



We invite inspection of our
line of Arc Light Supplies
which, while condensed, will
be found complete, and em-
braces all of the established
and approved material. . .

SERIES ARC LIGHT SUPPLIES.

ARC LAMP GLOBES.

We handle only first-class globes. They are carefully packed, but shipped strictly at owner's risk. Two dozen globes are contained in the regular size cask. Shipments will be made from factory.

In ordering use Trade Word, always following the same with CLEAR, OPAL or GROUND, according to style of glass desired.

We are prepared to furnish arc globes for all types of lamps, giving below a few of the standard sizes.



| Trade Word. | Style of Lamp. | DIMENSIONS IN INCHES. | | | |
|-------------|----------------------------|-----------------------|---------|--------------|--------------------------------------|
| | | Diameter. | Height. | Top Opening. | Bottom Opening. Outside Diameter. |
| Belonging | Ball | 12 | 12 | 6 | 2½ |
| Below | Brush, single | 12 | 12 | 8 | 3¼ |
| Bench | " double | 12 | 12 | 8 | 5 |
| Bend | Excelsior | 12 | 12 | 8 | 2½ |
| Bended | Sperry, single | 12 | 12 | 7½ | 3¼ |
| Bender | " double | 12 | 12 | 8½ | 4¼ |
| Bending | Standard | 12 | 12 | 7½ | 3¼ |
| Beneath | Schuyler | 12 | 12 | 8 | 4 |
| Benedictine | Thomson-Houston, single | 12 | 10 | 8 | 4 |
| Benediction | " double | 12 | 12 | 8 | 5 |
| Benefaction | United States, old, single | 9 | 12 | 4½ | 4½ |
| Benefactor | " " double | 10 | 13 | 5½ | 4½ |
| Benefit | " " new single | 12 | 12½ | 6 | 2 |
| Benefiting | " " double | 12½ | 12½ | 8 | 2 |
| Benevolent | Ward | 12 | 12 | 8 | 2½ |
| Benumb | " | 12 | 12 | 9 | 2½ |
| Benumbed | Wood | 12 | 11 | 9 | 4¼ |
| Benumbing | Western Electric | 11 | 12 | 8 | 4½ |
| Bequeath | " | 11 | 12 | 8 | 4½ |

In sending size state in the following order—Diameter, height, outside diameter of top opening and outside measurement of bottom. Also state if there is a flange at top and bottom

ARC LIGHT CARBONS.

| Trade Word. | Diameter. | Length. | Style. | Shape. |
|-------------|-----------|----------|-----------|--------|
| Behavior | ⅞ inch | 12 inch. | Plain. | Round. |
| Behead | 12 | 12 | Coppered. | " |
| Beheaded | 12 | 12 | Plain. | " |
| Beheading | 12 | 12 | Coppered. | " |
| Behest | 12 | 12 | Plain. | " |
| Behold | 12 | 12 | Coppered. | " |
| Belabor | 14 | 14 | Plain. | " |
| Belch | 14 | 14 | Coppered. | " |
| Belched | 7 | 7 | Plain. | " |
| Belching | 7 | 7 | Coppered. | " |
| Belfry | 7 | 7 | Plain. | " |
| Belgian | 7 | 7 | Coppered. | " |
| Belle | 7 | 7 | Plain. | " |
| Belled | 7 | 7 | Coppered. | " |
| Bellow | 8½ | 8½ | Plain. | " |
| Belong | 8½ | 8½ | Coppered. | " |
| Beholden | ¾ x ⅞ | 12 | Plain. | Oval. |
| Beholder | ¾ x ⅞ | 12 | Coppered. | " |
| Beholding | 1 x ⅞ | 12 | Plain. | Flat. |
| Behoove | 1 x ⅞ | 12 | Coppered. | " |
| Bellike | ¾ x ⅞ | 7 | Plain. | Oval. |
| Belittle | ¾ x ⅞ | 7 | Coppered. | " |

SERIES ARC LIGHT SUPPLIES.

CARBON CASE.

For trimmers' use.



| Trade Word. | | Price. |
|-------------|----------------|--------|
| Bedimming. | All leather... | \$4.00 |
| Bedlam. | Tin..... | 2.00 |

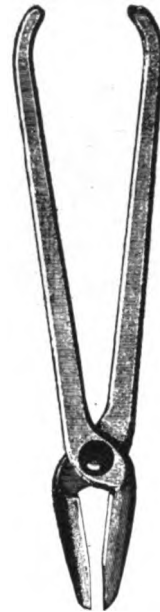
CARBON BAG.



All leather, with shoulder straps.

| Trade Word. | Price. |
|----------------|--------------|
| Bedridden..... | each, \$4.25 |

CARBON TONGS.



| Trade Word. | Price. |
|---------------|--------------|
| Bedstead..... | each, \$0.75 |

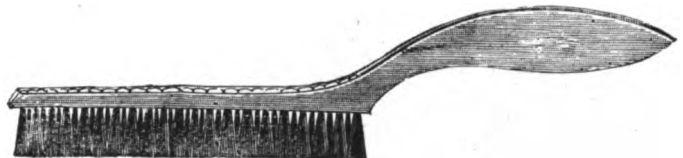
GLOBE BRUSH.

For cleaning arc lamp globes.



| Trade Word. | Price. |
|--------------|--------------|
| Bedtick..... | each, \$0.80 |

CARBON ROD BRUSH.



| Trade Word. | Price. |
|--------------|--------------|
| Bedtime..... | each, \$0.75 |

EMERY CLOTH.

For cleaning carbon rods in outside arc lamps.

| Trade Word. | No. | Price. |
|-------------|----------------------|-------------------|
| Beefsteak. | 0 | per quire, \$1.20 |
| Beeswax. | $\frac{1}{2}$ | " 1.20 |
| Beetle. | 1 | " 1.20 |
| Befall. | $1\frac{1}{2}$ | " 1.20 |
| Befit. | 2 | " 1.50 |
| Befogged. | $2\frac{1}{2}$ | " 1.80 |

CHAMOIS SKINS.

| Trade Word. | No. | Price. |
|-------------|---------------------|--------------|
| Beefeater. | 15 12x18 inches.... | each, \$0.50 |

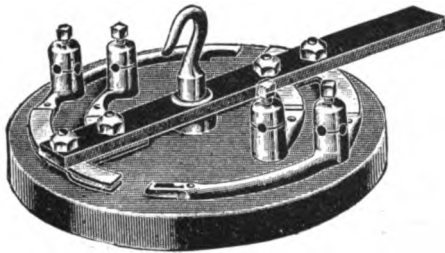
CROCUS CLOTH.

For cleaning carbon rods in inside arc lamps.

| Trade Word. | Price. |
|-----------------|-------------------|
| Before..... | per sheet, \$0.06 |
| Beforehand..... | per quire, 1.20 |
| ..... | per ream, 21.60 |

SERIES ARC LIGHT SUPPLIES.

BROMAN-STILLWELL RELIABLE ARC HANGER BOARD.

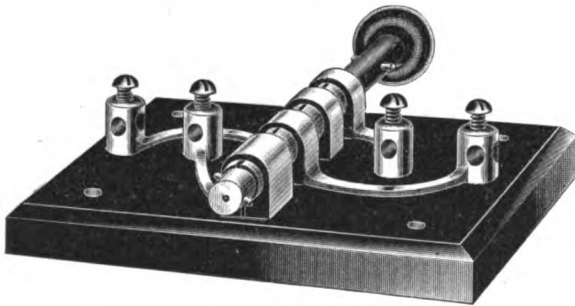


This is an absolute switch and all parts are made to gauge.

□ No contact breaker is required with the Broman-Stillwell "Reliable" hanging board, as the center hook is fastened to the slate and is always free from current.

| | |
|-----------------------|--------|
| Trade Word. | Price. |
| Obliterate. Each..... | \$2.75 |

THE KELSCH ARC LIGHT CEILING BOARD.



Approved by the City Inspection Department and Chicago Board of Underwriters.

Fewer contacts than any board made.

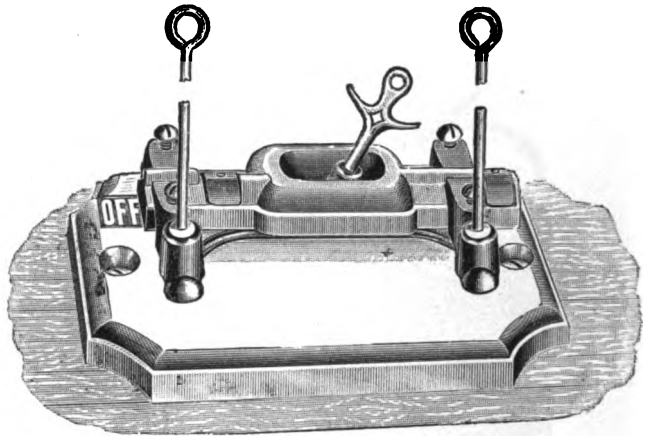
Line terminals on the outside which permits wires to be brought in from any direction without crossing the board and without the use of insulators close to the boards.

Line and lamp terminals and switch contacts cast in one piece.

No joints to work loose and cause trouble.

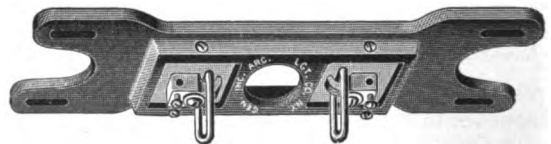
| | |
|-----------------------|--------|
| Trade Word. | Price. |
| Negotiated. Each..... | \$1.75 |

P. & S. CHINA ARC HANGING BOARD.



Has a double pole, double break china switch, giving an absolute cut-out with a quick snap action. Is six inches wide by ten inches long, and possesses an automatic device which closes the circuit if the lamp should be taken from the hanger-board while the current is turned on.

| | |
|---|--------|
| Trade Word. | Price. |
| Negotiate. For constant current series circuit.....each, | \$2.25 |
| Onerous. For constant potential multiple circuit. ....each, | 2.25 |



All Metal and Porcelain.

Approved by Fire Underwriters.

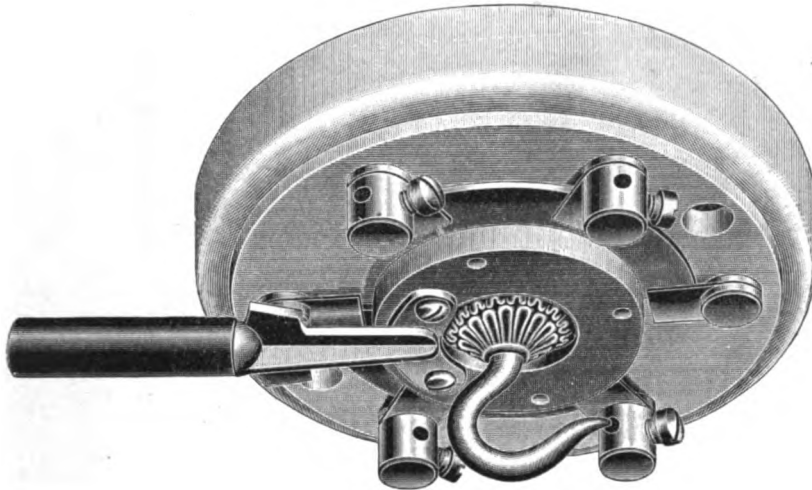
The hanger board here shown for constant potential lamps is non-combustible and made in accordance with the requirements of the Fire Underwriters. Provision is made for connection to the lamp either through the supporting rods or screw connection through wires.

| | |
|------------------|--------|
| Trade Word. | Price. |
| Organ. Each..... | \$0.90 |

SERIES ARC LIGHT SUPPLIES.

PERKINS PORCELAIN HANGER BOARD.

With insulating switch for series arc lighting.



The two short posts without screws in them are connected together on the back of the board.

The line is connected to the two binding posts whose contact fingers never break connection with the commutator segments, and the lamp is wired to the two remaining posts.

The cut shows the switch lever midway between the "On" and Off" positions, that is, at the point in its throw where the lamp is only short circuited; by completing the throw the lamp circuit is opened at two points with exceptionally long breaks.

It may be used as an insulating

switch for incandescent arc lighting if desired, by connecting the lamp to the posts whose fingers are always in contact with the segments and removing the two short posts entirely.

Trade Word.

Nosegay. Each.....\$1.75

Price.

THE BRYANT-CLEVELAND ARC CUT-OUT.

This arc cut-out is made entirely of porcelain and metal, consequently noncombustible and moisture-proof.

The action of the commutator at the point of breaking or closing the circuit is entirely uncontrolled by the handle.

The binding posts are the well-known K. W. style, very secure and easy to wire.

Trade Word.

Oblivion. Each.....\$1.90

Price.



F. W. ARC CUT-OUTS.

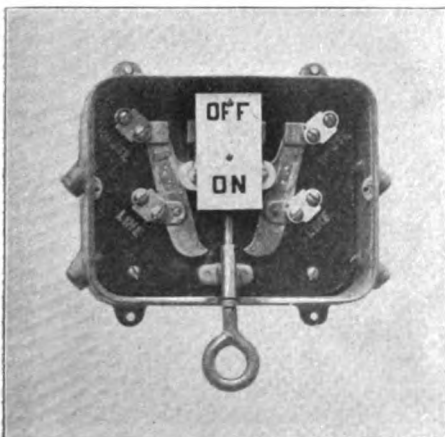
Large.

An improved cut-out designed for heavy work. Approved by the Fire Underwriters

Trade Word.

Nicotine. Each.....\$3.00

Price.



SERIES ARC LIGHT SUPPLIES.

F. W. CUT-OUTS.

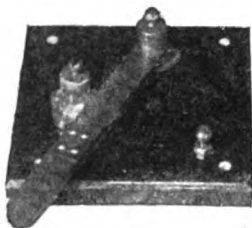


Small. Intended for light service.

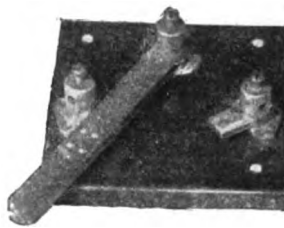
| | |
|------------------|--------|
| Trade Word. | Price. |
| Oral.. Each..... | \$3.00 |

ARC LIGHT SWITCHES.

Mounted on slate bases.



2 Point.

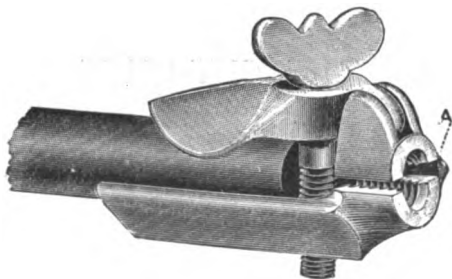


3 Point.

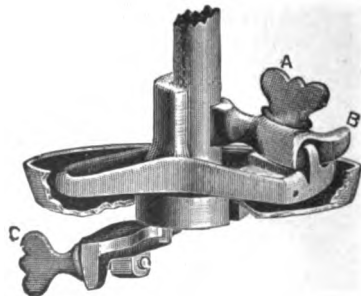
| | | |
|-------------|-------------------------------|--------------|
| Trade Word. | | Price. |
| Fussy. | 2 Point arc light switch..... | each, \$1.20 |
| Fustian. | 3 " " " "..... | " 1.50 |

UNIVERSAL CARBON HOLDERS.

Especially suitable for Brush or Thomson-Houston Lamps. Will hold either a 7-16 or 1-2 inch carbon firmly.



Upper holder.

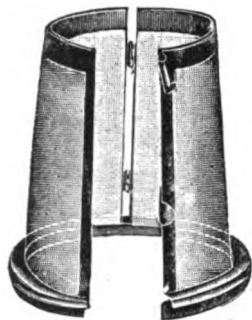


Lower holder.

| | | |
|-------------|--|--------|
| Trade Word. | | Price. |
| Battle. | For $\frac{7}{16}$ or $\frac{1}{2}$ inch carbon... each, | \$0.30 |
| Battlement. | " $\frac{5}{8}$ inch carbon..... " | .30 |

| | | |
|------------|--|--------|
| Trade Word | | Price. |
| Bawled. | For $\frac{7}{16}$ or $\frac{1}{2}$ inch carbon... each, | \$0.40 |
| Bawling. | " $\frac{5}{8}$ inch carbon..... " | .40 |

SERIES ARC LIGHT SUPPLIES.



THE CENTRAL SPARK AND INSECT ARRESTERS.

These arresters are made to fit any inside frame lamps, and all outside frame lamps where the cylinder is suspended from the inside of the top of the frame.

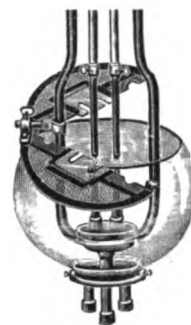
In ordering please state what lamp they are intended to fit, also height, and bottom and top diameters.

| Trade Word. | | Price. |
|-------------|----------------------------------|--------|
| Beautify. | Central spark arrester.....each, | \$2.50 |
| Calcining. | " " " for angular lamps..... | 2.50 |

SPENCER FLAT SPARK ARRESTER.

Especially recommended for inside use. It is strongly made of wire gauze, bound with band iron. The trap doors are made of heavy mica bound with perforated tin, insuring insulation and strength.

| Trade Word. | | Price. |
|-------------|----------------------------------|--------|
| Beating. | For single carbon lamp.....each, | \$1.80 |
| Beauteous. | " double " " | 2.00 |



ARC LAMP HOODS.



Arc Lamp Hoods.

For any standard system.

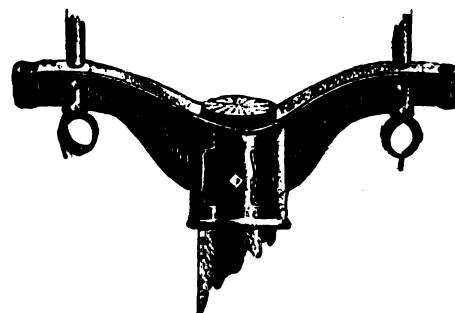
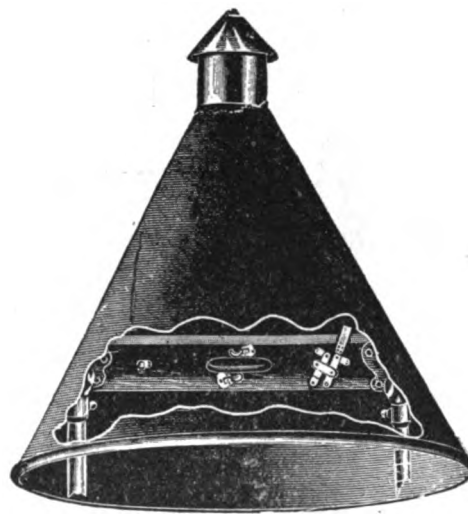
| Trade Word. | | Price Each |
|-------------|--|------------|
| Beauty. | Hood only, without hanging board..... | \$2.50 |
| Beautyspot. | " with hanging board and absolute switch.. | 5.00 |
| | " " plain hanging board..... | 3.50 |

Pole Hoods.

For standard street arc lamps.

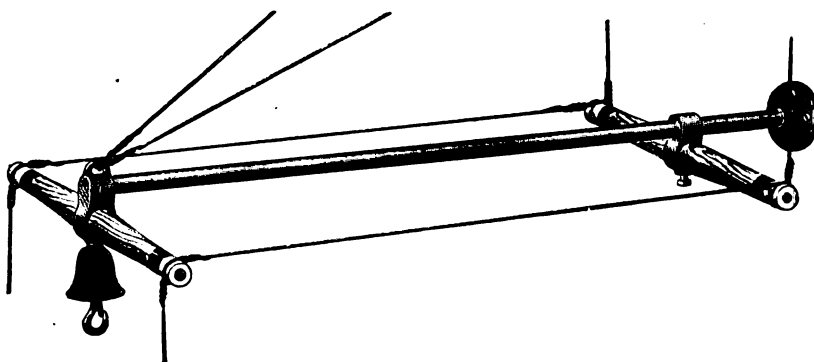
| Trade Word. | | Price Each. |
|-------------|---|-------------|
| Calcined. | Complete with hood, absolute cut-out hanger board, frame and lower cross arm..... | \$8.50 |

POLE HOODS.



SERIES ARC LIGHT SUPPLIES.

CUTTER'S OUT-RIGGER.



A complete out-rigger with central "arc insulator" and enameled wood arm at the end, also an inner arm which is adjustable so as to clear signs, etc.

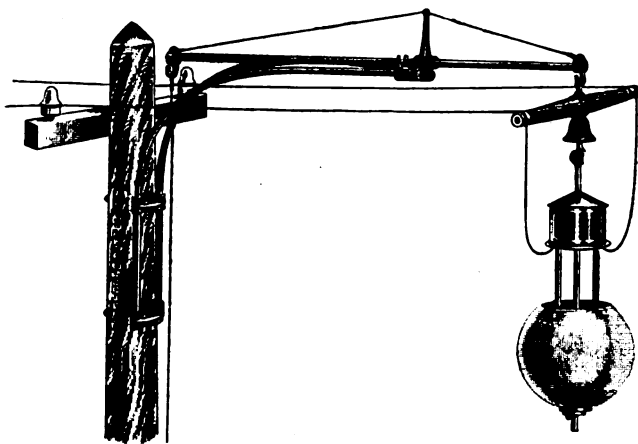
Trade Word.

Price.

Notch. Complete as per cut, 6 foot.....\$1.50

(Other sizes built to order on short notice.)

CUTTER'S SWINGING ARC FIXTURE.



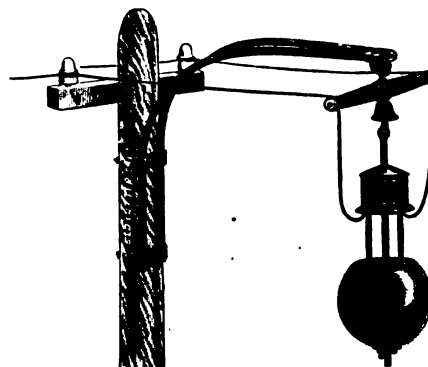
A pole fixture which holds the lamp five feet from the pole, but swings it in towards the pole for trimming. Is strongly made of wrought iron tubing, malleable iron fittings and steel strain rods, while the "combination cross-arm" insures proper insulation.

Trade Word.

Price.

Novel. Complete.....\$3.50

CUTTER'S POLE ARC FIXTURE.



Holds the lamp three feet from the pole, guides the line wires and insulates the lamp from the fixture.

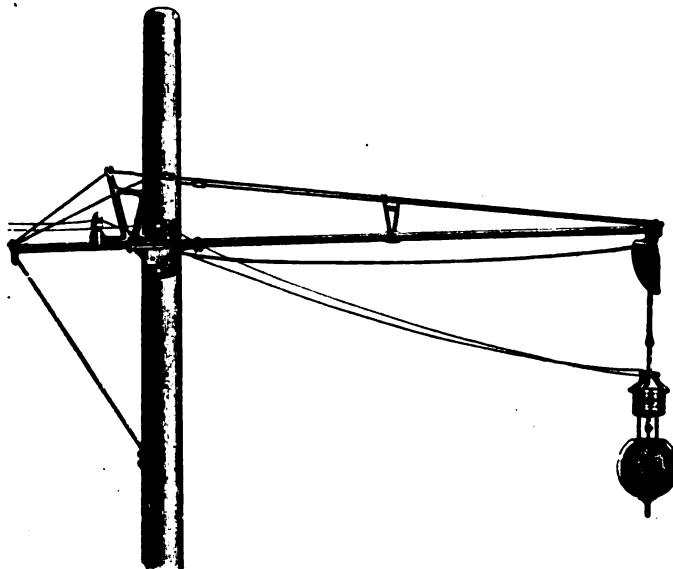
Trade Word.

Price.

Nugget. Complete.....\$2.50

SERIES ARC LIGHT SUPPLIES.

CUTTER'S MAST ARM.



(Patented.)

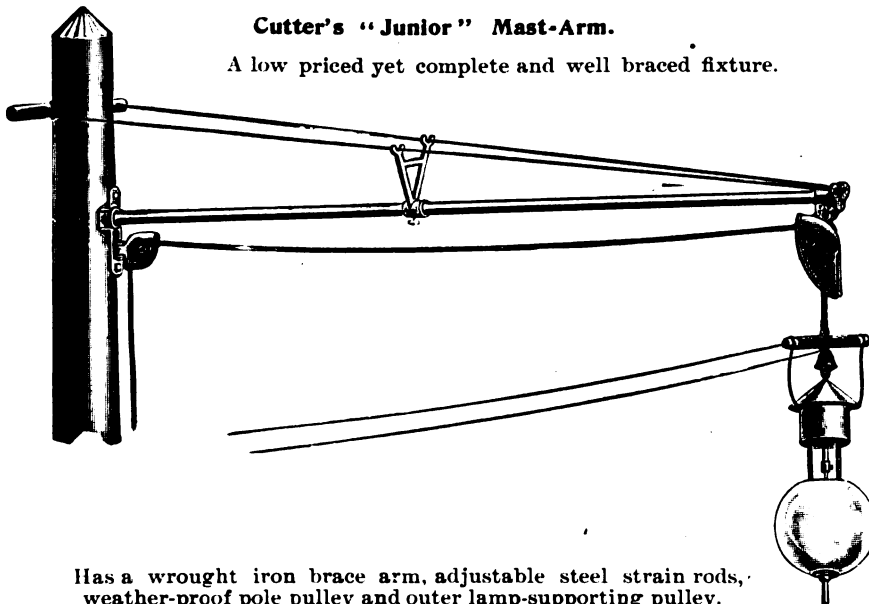
A most complete, rigid and handsome mast-arm. Fitted with lamp-supporting pulley at the outer end, weather-proof pulley and insulator arm at the pole, steel strain rods and turnbuckles for tightening same. Shipped knockdown, but very quickly put up.

Trade Word.

| | | | |
|-------|--|--------|---------|
| Numb. | Complete, with 12 foot overhang (from lamp to pole)..... | Price. | \$12.00 |
| | Each additional foot overhang..... | | .75 |

Cutter's "Junior" Mast-Arm.

A low priced yet complete and well braced fixture.



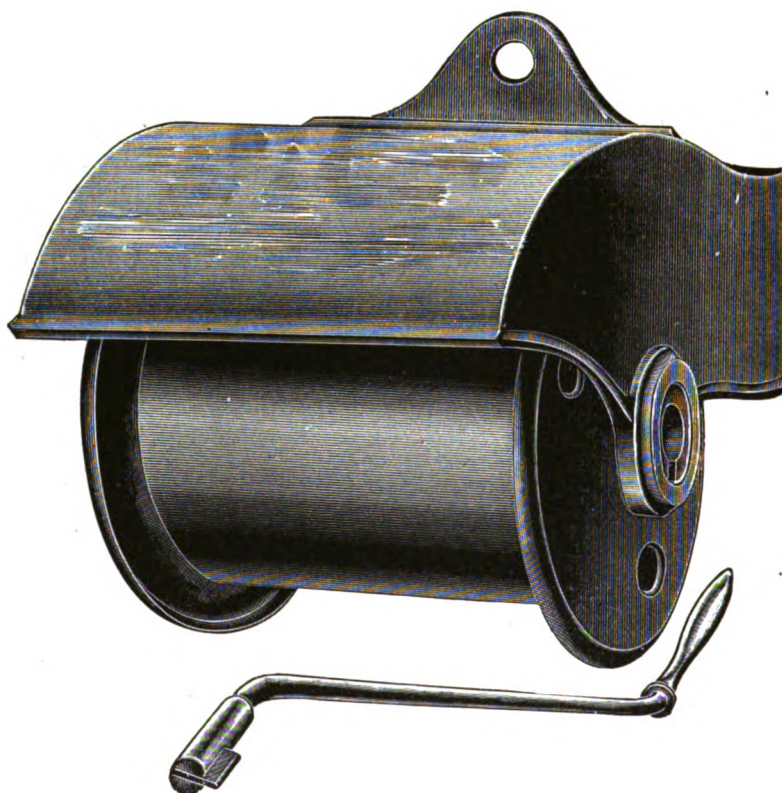
Has a wrought iron brace arm, adjustable steel strain rods, weather-proof pole pulley and outer lamp-supporting pulley.

Trade Word.

| | | | | | |
|-----------|-----------|--------|-------|-------|--------|
| Oak. | Complete, | 6 foot | ..... | each, | \$3.60 |
| Oats. | " | 8 " | ..... | " | 3.90 |
| Octaroon. | " | 10 " | ..... | " | 4.20 |
| Oldish. | " | 12 " | ..... | " | 4.50 |
| Optic. | " | 14 " | ..... | " | 4.80 |

SERIES ARC LIGHT SUPPLIES.

AYER'S SELF-LOCKING ARC LAMP WINDLASS.



The Ayer's windlass is as perfect a device as has been offered for the purpose designed; the working parts are few and so placed as not to be affected by ice or snow. The wire on the windlass is also protected by the hood (shown in cut) which materially prolongs its life.

The windlass is unlocked by the insertion of the crank and when unlocked is free to be operated in either direction; as a matter of precaution, however, there is provided a ratchet which engages with the drum so that the drum is held at any point desired; the withdrawal of the crank locks the ratchet, which in addition to the interior lock, makes it absolutely impossible for the lamp to drop or to be interfered with. An attachment can be provided adapted to be used with the Fletcher and other cranks.

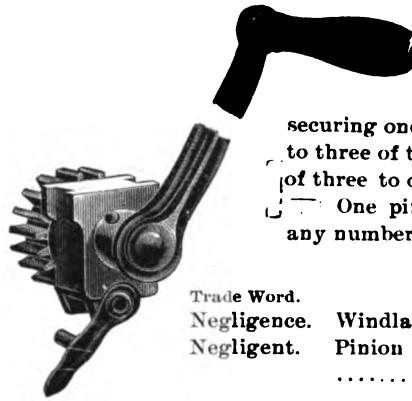
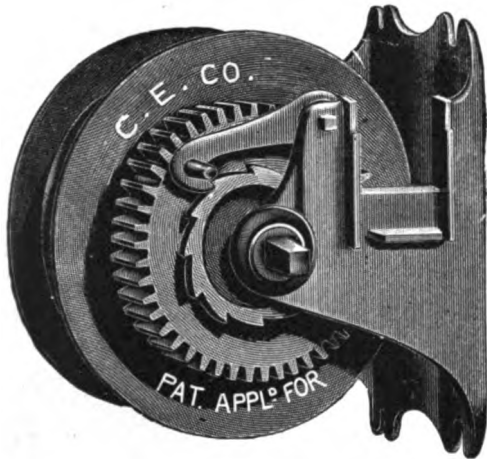
Trade Word.

Mutton. each, \$2.00

Price.

SERIES ARC LIGHT SUPPLIES.

CHICAGO COMBINATION WINDLASS.



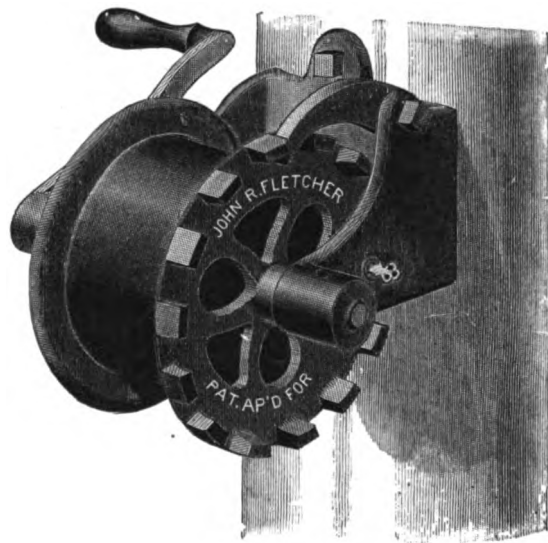
The handle can be applied direct to shaft, or the pinion thereon to the gearing; in the latter case securing one revolution of the drum to three of the handle, or a leverage of three to one in raising the lamp. One pinion handle suffices for any number of windlasses.

| Trade Word. | Price. |
|---|--------|
| Negligence. Windlass only. ....each, | \$3.00 |
| Negligent. Pinion handle, as per cut, | 1.00 |

FLETCHER SAFETY WINDLASS.

| Trade Word. | No. | Price. |
|--------------|-------|---|
| Besiege. | 1048. | Windlass takes 35 feet iron flexible cord .....each, \$2.50 |
| Besiegement. | 1049. | Windlass takes 75 feet iron flexible cord .....each, 3 00 |
| Besieging. | | Handle (or crank) for either above windlasses..... each, 1.00 |

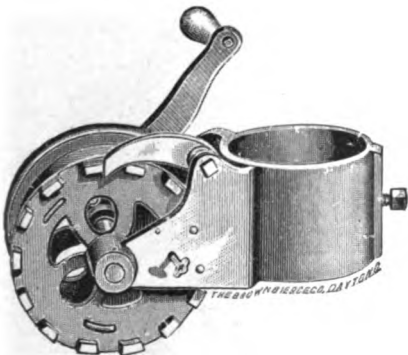
Above prices do not include crank.



FLETCHER SAFETY WINDLASS.

For iron poles.

| Trade Word. | Price. |
|---|--------|
| Olympic. Windlass takes 35 feet iron flexible cord..... | \$3.50 |
| Omelet. " " 75 " " " " | 4.00 |
| Omen. Handle (or crank) for above | 1.00 |



SERIES ARC LIGHT SUPPLIES.

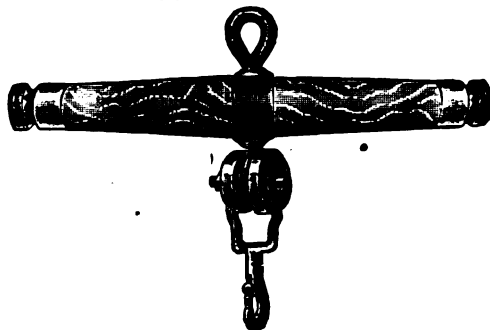
CUTTER'S COMBINATION CROSS ARM.



Combines the Chicago arc insulator with a spreader cross arm for line wires.

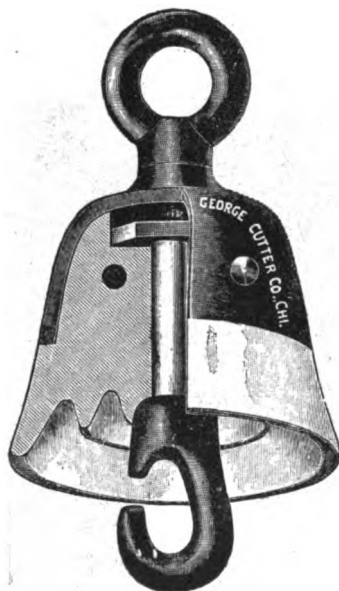
Trade Word. Price.
Morgueeach, \$0.60

FLETCHER'S INSULATED CROSS ARM.



Trade Word. Price.
Oldness.each, \$0.60

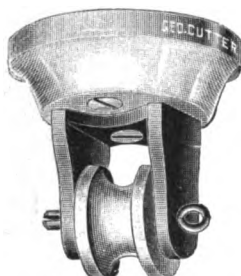
CHICAGO ARC INSULATOR.



The neatest and most effective device for insulating the frame of an arc lamp from the hoisting and suspension rope.
Trade Word. Price.
Neglectful. Chicago arc insulatoreach, \$0.40

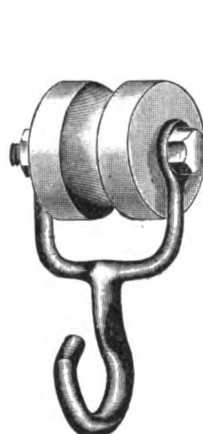
CUTTER'S REVOLUTIVE INSULATOR.

For arc light wiring.



Makes a firm support with a double insulation between the wire and ceiling.
Trade Word. Price.
Neutral.per 100, \$12.00

FLETCHER'S INSULATING LAMP HANGERS.



No. 1052.



No. 952.

| Trade Word. | No. | Price. |
|-------------|-------|--|
| Mud. | 1052. | Fletcher insulating lamp hanger with hook \$0.25 |
| Music. | 952. | Fletcher insulating lamp hanger with snap .35 |
| Musk. | 972. | Fletcher (three knob) insulating lamp hanger with hook .30 |
| Mustard. | 973. | Fletcher (three knob) insulating lamp hanger with snap .40 |

CUTTER'S CEILING HOOK.

[With malleable fittings, porcelain insulation.

Trade Word. Price.
Olive.each, \$0.25



SERIES ARC LIGHT SUPPLIES.

CUTTER'S POLE LOCK.

A weather-proof lock shaped to fit the pole.



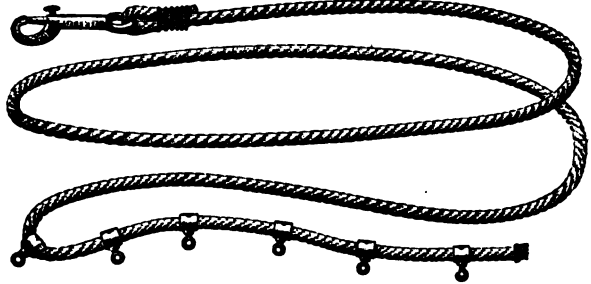
Trade Word. Mogol. Cutter pole lock. each, \$0.40

Price.

One key furnished free with every 10 locks.

TRIMMERS' SNAP ROPE.

For use with Cutter's pole lock. Adjustable to suit lamps placed at any height up to 30 feet.



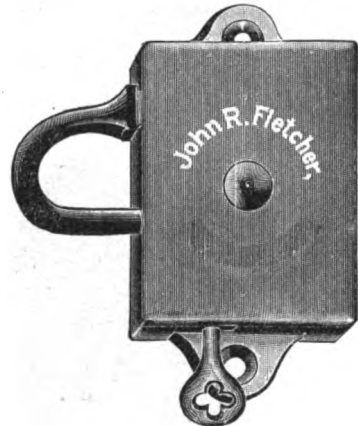
Trade Word.

Mole. Trimmers' snap rope, 30 feet. each, \$1.25

Price.

FLETCHER'S IMPROVED POLE PADLOCK.

Very necessary for use where flexible iron cord is used with ring attachment at end. By using this Padlock, the trimmer needs only a bridle-snap and piece of rope of sufficient length to lower his lamps.



Trade Word. No. Money. 962. Fletcher's improved pole padlock. each, \$0.30

Price.

ARC LAMP CROSS ARM.

For suspending arc lamps.



Trade Word. Beardless. each, \$0.20

Price.

CUTTER'S FEATHERWEIGHT SPREADER.



Trade Word. Omnibus. each, \$0.15

Price.

WIRE ROPE INSULATOR.



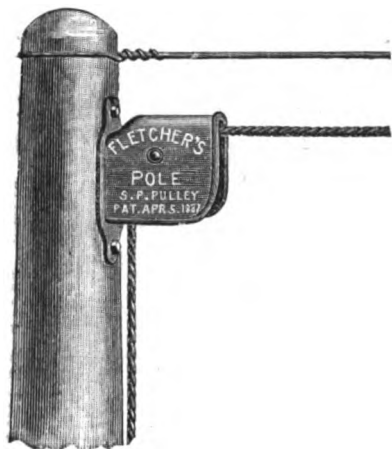
A steel link with hard rubber moulded around it. Provided with steel ferrules to keep the rope from cutting into the rubber. When looped into wire hoisting rope just outside the pole-pulley it insulates the trimmers' end from the portion running to the lamp, thus avoiding grounds and accidents.

Trade Word. Merchant. Per doz. \$3.60

Price.

SERIES ARC LIGHT SUPPLIES.

FLETCHER SLEET PROOF PULLEYS.



Pole Pulley.

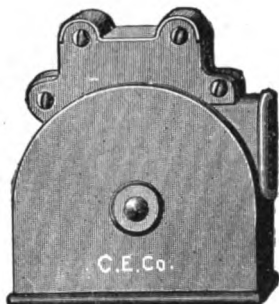
Recommended for use with Fletcher Sure Grip Pulley.

| Trade Word. | No. | | Price |
|-------------|------|---|--------|
| Earl. | 929. | Midget, takes $\frac{1}{4}$ inch rope.....each, | \$0.25 |
| Bestow. | 939. | " " up to $\frac{1}{2}$ inch rope..... " | .35 |
| Earth. | 938. | Jumbo " 1 inch rope..... " | .75 |
| Ebony. | 936. | Double wheel, takes up to $\frac{1}{2}$ inch rope.. " | .75 |
| Echo. | 940. | Swivel pole pulley..... " | .35 |

CENTRAL PULLEYS.

Suspension Pulley.

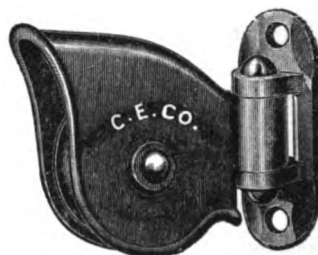
Is provided with clamping and supporting devices by means of which the pulley is suspended at three points. Will grip cable up to $\frac{3}{8}$ inch.



| Trade Word. | Price. |
|--------------------|--------|
| Ominous. Each..... | \$0.50 |

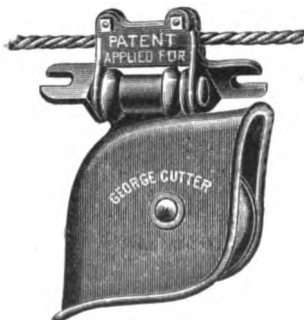
Swivel Pole Pulley.

Is swiveled from a strong malleable iron wall-plate. and is free to swing sideways so as to keep in line with the hoisting rope. It will therefore avoid all chafing of the rope on the edge of the pulley, saving this wear on the rope.



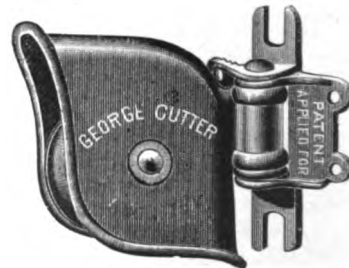
| Trade Word. | Price. |
|---------------------------|--------|
| Besot. Complete.....each, | \$0.25 |

CUTTER'S INTERCHANGEABLE PULLEYS.



A single sleet proof pulley, which serves either as a suspension or as a fine swivel pole pulley.

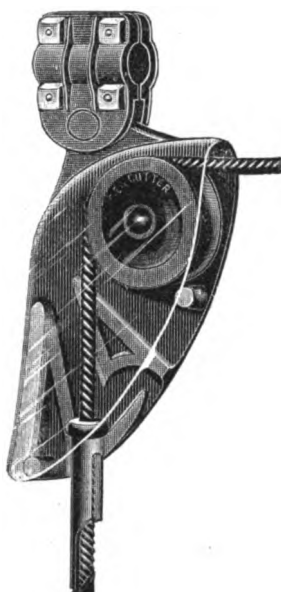
| Trade Word. | Price. |
|---|--------|
| Fate. Cutter's interchangeable pulley.....each, | \$0.40 |



SERIES ARC LIGHT SUPPLIES.

CUTTER'S SPECIALTIES.

Outrigger Pulley.



A modification of the lamp supporting pulley to fit $\frac{3}{4}$ inch iron pipe. Complete with malleable iron hook knob.

| | |
|-----------------------------|--------------|
| Trade Word. | Price. |
| Maze. Outrigger pulley..... | each, \$0.80 |

Double Grip Medium Suspension Pulley.



For center suspension.

| | |
|---------------------|--------|
| Trade Word. | Price. |
| Onerary. Each | \$0.40 |

Plain End Pulley.



A weather-proof pulley for mast arm ends.

| | |
|--|--------------|
| Trade Word. | Price. |
| Medal. For $1\frac{1}{4}$ inch pipe..... | each, \$0.40 |
| Memory. " $1\frac{1}{4}$ " | " .40 |

Sleeve Pulley.



A weather-proof pulley with clamp to fit $\frac{3}{4}$ inch iron pipe.

| | |
|---------------------|--------|
| Trade Word. | Price. |
| Mexican. Each | \$0.40 |

Wire Rope Clamp.

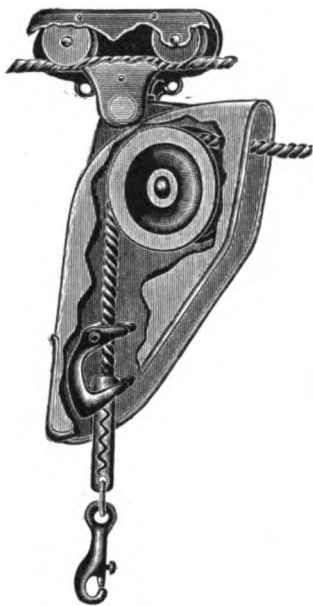


Clamps the end of the hoisting rope so that it can be locked at the pole. Made of malleable iron, takes any size rope up to $\frac{3}{4}$ inch.

| | |
|--------------------|--------|
| Trade Word. | Price. |
| Mice. Per doz..... | \$1.50 |

SERIES ARC LIGHT SUPPLIES.

FLETCHER'S TRAVELING SUSPENSION PULLEY.



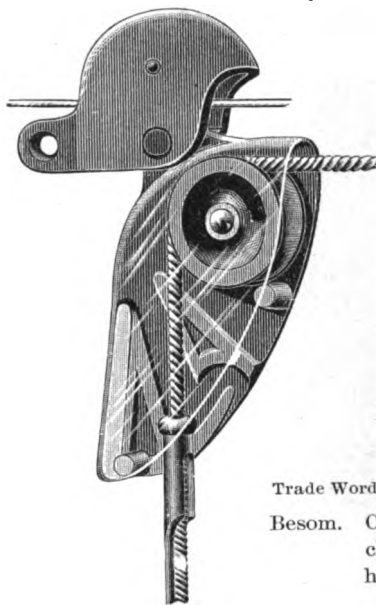
This pulley is designed to be drawn back and forth from center to side of street where electric railway trolley wires interfere with the trimmer in lowering his lamp.

One double wheel pole pulley required with each traveling pulley.

| Trade Word. | No. | | Price. |
|-------------|-------|-----------------------------|--------|
| Desert. | 951A. | With malleable hook...each, | \$1.00 |
| Deserted. | 951B. | " insulating " ... " | 1.25 |
| Deserting. | 951C. | " " snap... " | 1.35 |

CUTTER'S RUNNING PULLEY.

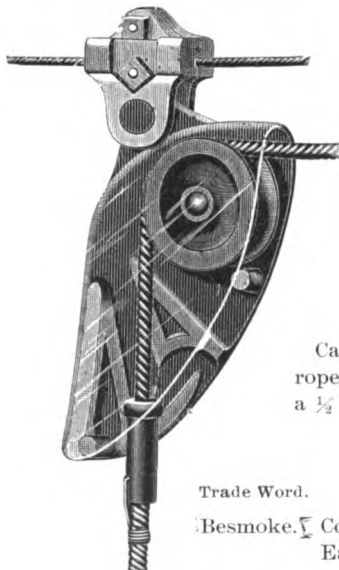
The only safety pulley made for use over trolley wires.



This running pulley holds the lamp securely when raised and allows it to be lowered close to the pole without interfering with the trolley or guard wires.

| Trade Word. | Price |
|--|--------------|
| Besom. Complete with clamp stop and hook-knob. | each, \$1.20 |

CUTTER'S AUTOMATIC ARC LAMP SUPPORTING PULLEY.

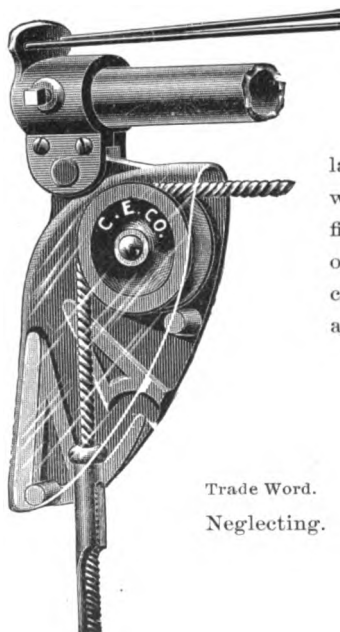


Has a swivel clamp which will fit any size suspension wire or cable, and has a malleable iron knob which is adapted to be secured to both the hoisting rope and the top of the lamp.

Can be used with any size rope from a $\frac{1}{4}$ inch cable to a $\frac{1}{2}$ inch hemp rope.

| Trade Word. | Price. |
|-----------------------------|--------|
| Besmoke. Complete with knob | |
| Each. | \$1.00 |

CUTTER'S AUTOMATIC MAST ARM ARC LAMP SUPPORTING PULLEY.



This is a form of the lamp-supporting pulley with a special clamp to fit iron pipe ($1\frac{1}{4}$ -inch outside diameter) as commonly used for mast-arms.

| Trade Word. | Price. |
|-------------------------|--------------|
| Neglecting. Complete... | each, \$0.90 |

SERIES ARC LIGHT SUPPLIES.

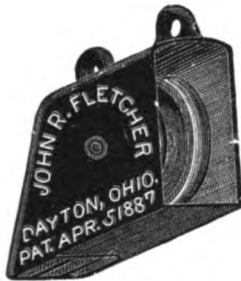
FLETCHER'S SLEET PROOF PULLEYS.

Midget.

No. 954.

For municipal lights.

Trade Word. Price.
Bespeak.....each, \$0.50

Duplex.

Two wheels.

Trade Word. Price.
Bestain.....each, \$1.00

Medium.

No. 953.

For ordinary arc lights.

Trade Word. Price.
Bespeak.....each, \$0.75

Twin.

Trade Word. Price.
Bestir.....each, \$1.00

Jumbo.

No. 955.

For extra heavy arc lights.

Trade Word. Price.
Bespoke.....each, \$1.00

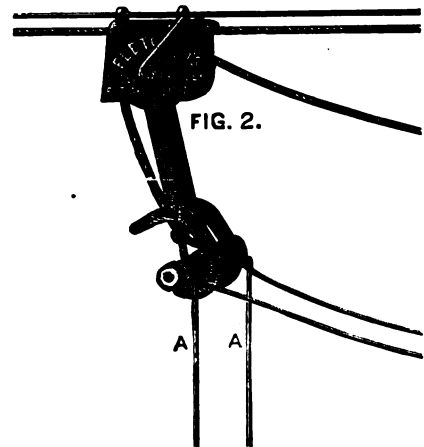
Danals Arc Light Support.

FIG. 2.

Sure Grip Pulleys.

Fig. 1.

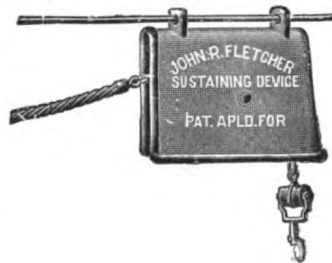


Fig. 2.

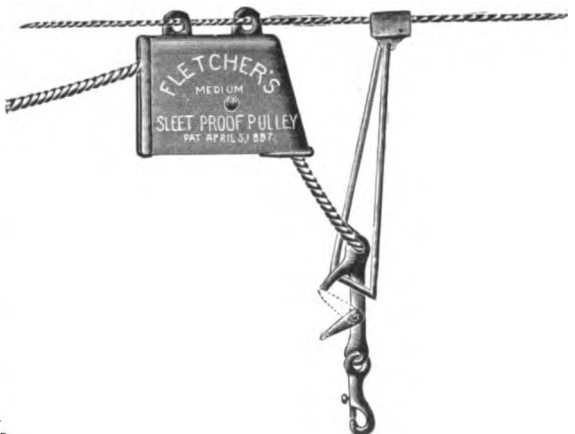
Fig. 1 shows position of cord as it is being drawn into action. Fig. 2 shows position when lamp is in suspension.

Trade Word. Price.
Bestowing. Complete, except rope and insulating lamp hanger \$1.50

Fletcher's Safety Lamp Support.

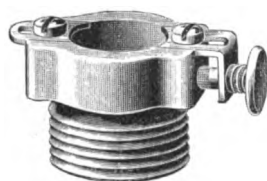
Designed especially to be used when pulleys are already up. Can be used with any pulley, either sleet proof or open, and saves the lamp from falling should ropes become worn or otherwise imperfect.

Trade Word. No. Price.
Log. 958.....each, \$0.75



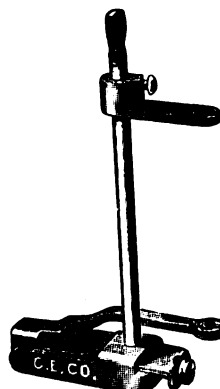
SERIES ARC LIGHT SUPPLIES.

CENTRAL CARBON CLUTCH AND BUSHING.



Bushing.

Trade Word. Price.
Negotiator. each, \$0.80

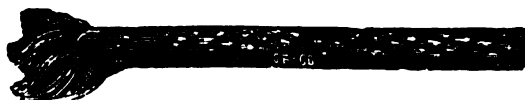


Clutch.

Adjustable to a thousandth part of an inch. Contact parts are made of German silver.

Trade Word. Price.
Negotiating. each, \$1.00

SAMPSON WATER-PROOF SPOT CORD.



The life of all cords, whether for inside or outside service, is increased by protecting them from the action of the atmosphere. The smooth and pliable finish which this process of water-proofing gives, besides fulfilling this purpose, is of especial benefit in running over pulleys.

There are many cases in which it is desirable to avoid the changes in length which accompany varying amounts of moisture in the air, even indoors. For this purpose water-proofing is found to be very beneficial.

Put up in original coils 100, 500, 1,000 or 1,200 feet in length; supplied from Chicago stock in above lengths only.

| Trade Word. | Diameter inches. | Approximate feet to pound. | Price. per pound. |
|-------------|------------------|----------------------------|-------------------|
| Castor-Oil. | $\frac{1}{4}$ | 44 | \$0.60 |
| Castrating. | $\frac{5}{16}$ | 30 | .60 |
| Castrel. | $\frac{3}{8}$ | 21 | .60 |

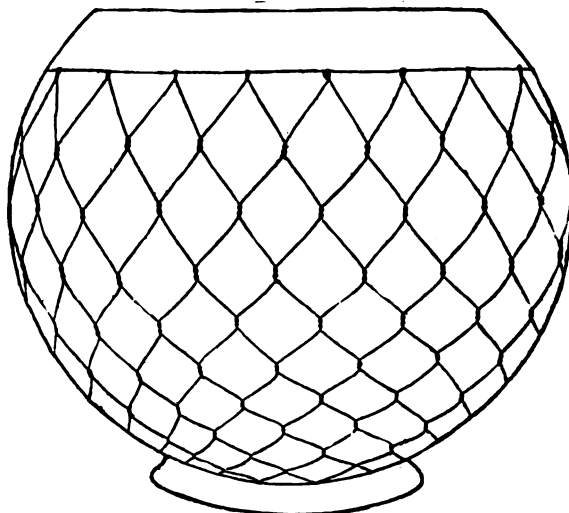
Less than full coils 20 per cent. additional.

MANILLA ROPE.

| Trade Word. | Size inches. | Approximate feet to pound. | Price quoted on application |
|--------------|------------------------|----------------------------|-----------------------------|
| Casualness. | $\frac{1}{4}$ 6 thread | 43 | |
| Catfish. | $\frac{5}{16}$ 9 " | 30 | |
| Casuistic. | $\frac{3}{8}$ 12 " | 24 | |
| Casuistical. | $\frac{1}{2}$ | 13 $\frac{1}{2}$ | |

Larger sizes can be furnished from Chicago stock.

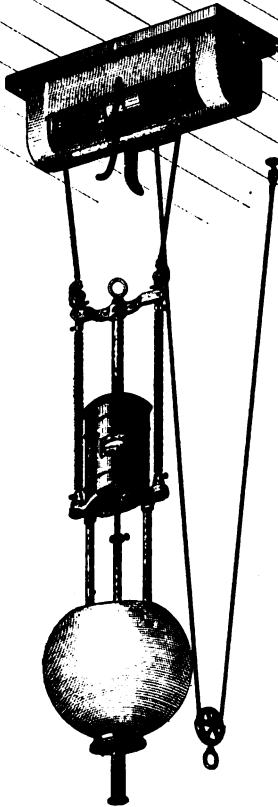
GLOBE NETS.



These nets render it possible to keep a cracked globe in service. Adjustable to all sizes of globes and are easily removed.

Trade Word. Price.
Bargain. Per doz. \$2.40

SERIES ARC LIGHT SUPPLIES.



IMPROVED ADJUSTABLE LAMP HANGER.

Adapted for any type of lamp, constant current or constant potential. Lamp is suspended by the flexible conducting cables which wind upon an enameled iron cylinder, and connect by specially designed contacts to main circuit.

The lowering of lamp cuts it out of circuit, and at same time does not disturb the other lights on circuit. The lamp is automatically cut into circuit when raised to proper height. Sufficient length of conducting cord can be provided to lower lamp 25 feet; constructed throughout of fire-proof material, and approved by Board of Underwriters. In ordering, state whether for constant current or constant potential.

Trade Word.

Price.

Omnific. Complete, with cord each, \$20.00



PATTEE LAMP-HOUR RECORDER.

"A Common Sense Meter for Arc Lamps."

Has a fifteen-day clock movement which is controlled by an electro-magnet so as to keep an accurate count of the burning hours. Needs rewinding but once a month (when the readings are taken). The magnets consume an inappreciable amount of energy, and the reading is easily checked by comparison with a watch, so that there can be no complaints from the consumer.

In ordering give the amperes of the circuit.

Trade Word.

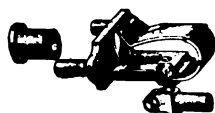
Price.

Nymph. each, \$12.00

Pattee Lamp-Hour Recorder.
(PATENTED.)

SERIES ARC LIGHT SUPPLIES.

SWITCH BOARD PLUGS AND SPRING JACKS.



No. 21350.



No. 25325.

An improved type of arc switchboard spring jack is shown in No. 21350 and No. 25325; are so constructed that no current carrying metal part is on the face of the board, obviating the liability of shock in the manipulation of the circuits; is strong and well constructed.

| Trade Word. | No. | Price. |
|-------------|-------------------------|--------------|
| Scribe. | 21350. Spring jack..... | each, \$3.00 |
| Scant. | 25325. Test "..... | " .60 |

IMPROVED PLUGS.



No. 21352.



No. 21351.

The exposed metal parts used in making connections are covered by a sheathing of hard rubber which recedes into the handle when placed in the jack and springs out when pulled from the jack, preventing accidental contact with the hand and consequent injury. Made of hard rubber in two sizes for main and transfer.

| Trade Word. | No. | Price. |
|-------------|---------------------------|--------------|
| Scoff. | 21352. Main plug..... | each, \$3.50 |
| Scroll. | 21351. Transfer plug..... | " 2.90 |

OLD STYLE PLUGS.



No. 1177.



No. 1176.

Same size as those noted above but without the protection on terminals.

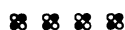
| Trade Word. | No. | Price. |
|-------------|--------------------------|--------------|
| Seabank. | 1177. Main plug..... | each, \$1.80 |
| Seaboat. | 1176. Transfer plug..... | " 1.20 |

SKELETON LAMP CLEAT.



| Trade Word. | | | Price. |
|-------------|----------------------------|-----------|--------|
| Cardinal. | Galvanized, 4½ inches..... | per doz., | \$0.40 |
| Careen. | " 6 "..... | " | .70 |
| Careful. | " 8 "..... | " | 1.00 |
| Careless. | " 10 "..... | " | 2.00 |

CONSTRUCTION MATERIAL. . . .



We believe this department
is, at the time of going to
press, complete as regards
the listing of articles of merit.

Attention is called to the re-
duced prices of nearly all the
staple articles.

CONSTRUCTION MATERIAL.

STANDARD CROSS-ARMS.



Painted two coats red ; finished size $3\frac{1}{2}$ inches by $4\frac{1}{2}$ inches. Bored for $1\frac{1}{2}$ inch pins and two $\frac{1}{2}$ inch lag bolts, unless otherwise specified.

Prices F. O. B. Chicago.

| Trade Word. | Length. | No. Pins. | SPACINGS. | | | Price Each. |
|----------------|---------|-----------|-----------|--------------------|--------------------|----------------|
| | | | End. | Center. | Sides. | |
| Calmly..... | 3 feet. | 2 | 4 inches. | 28 inches. | ..... | \$0.18 |
| Calmness | 4 " | 4 | 4 " | 16 " | 12 inches. | .24 |
| Calomel | 5 " | 4 | 4 " | 18 " | 17 " | .30 |
| Caloric..... | 6 " | 4 | 4 " | 22 " | 21 " | .36 |
| Calumet..... | 6 " | 6 | 4 " | 16 " | 12 " | .41 |
| Calumny..... | 8 " | 6 | 4 " | 18 " | 17 $\frac{1}{2}$ " | .48 |
| Calvary..... | 8 " | 8 | 4 " | 16 " | 12 " | .53 |
| Cambrian..... | 10 " | 8 | 4 " | 17 $\frac{1}{2}$ " | 15 $\frac{3}{4}$ " | Special Prices |
| Cambric..... | 10 " | 10 | 4 " | 16 " | 12 " | " " |

Odd lengths same price as next longer arm having same number of pins. Odd spacing extra prices.

TELEPHONE CROSS-ARMS.

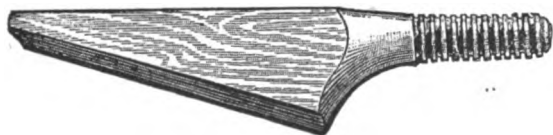
Prices F. O. B. Factory.

Painted two coats red; finished size $2\frac{3}{4}$ inches by $3\frac{3}{4}$ inches. Bored for $1\frac{1}{4}$ inch pins and two $\frac{1}{2}$ inch lag bolts.

| Trade Word. | No. Pins. | Length. | Price |
|-------------|-----------|----------------|-------------------|
| Hangnail. | 2. | 24 inches..... | each, \$0.10 |
| Hanker. | 2. | 30 " | .12 $\frac{1}{2}$ |
| Hankering. | 4. | 42 " | 16 |
| Hapless. | 6. | 62 " | 24 |
| Haply. | 8. | 82 " | .32 |
| Happen. | 10. | 102 " | .39 |
| Happening. | 12. | 120 " | .55 |

A carload consists of 10,000 lineal feet.

WOOD BRACKETS.



Extra heavy oak, painted.



Brown duplex, painted.

| Trade Word. | Price. |
|---------------------------------------|---------|
| Calm. From Chicago stock...per 1,000, | \$21.00 |
| Calmed. " factory..... | 20.00 |

| Trade Word. | Price |
|---|---------|
| Cabman. From Chicago stock...per 1,000, | \$50.00 |

CONSTRUCTION MATERIAL.

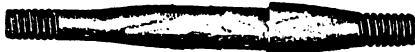
WOOD PINS.



| Trade Word. | Size | Price. |
|-------------|---|-------------------|
| Caboose. | Size 1½ in., oak split, painted..... | per 1000, \$14.00 |
| Cachle. | " 1½ in., locust, selected, unpainted, .. | " 12.00 |
| Cactus. | " 1½ in., locust, selected, unpainted, .. | " 24.00 |
| Cabal. | " 1½ in., locust, selected, unpainted, .. | " 20.00 |

Prices on pins \$1.00 per M (list) less when shipped from factory.

BROWN DUPLEX PIN.



| Trade Word. | Size | Price. |
|-------------|--------------------------------|-------------------|
| Cabinet. | Size 1½ in., oak, painted..... | per 1000, \$30.00 |

CORNER PINS.



| Trade Word. | Size | Price. |
|-------------|---|---------------|
| Caddy. | Size 1½ in., oak, split with bolt and washer complete, per 1000..... | each, \$ 0.00 |
| Cadeting. | Size 1½ in., locust, selected, with bolt and washer complete, per 1000..... | each, .12 |

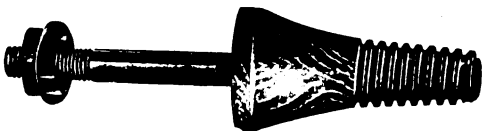
WESTERN UNION STANDARD
STEEL CROSS ARM PIN.

| Trade Word. | Size | Price. |
|-------------|--|--------------|
| Cabin. | ½ in. shank, complete with hardwood thimble, nut and washer, per 1000..... | each, \$0.08 |
| | Per 100..... | " .10 |

LOCKE'S INSULATING PINS.

Complete with hardwood thimble, nut and washer.

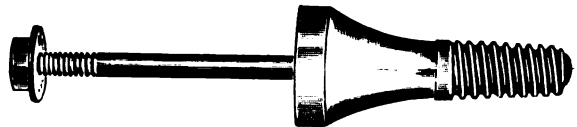
High Potential Pin.



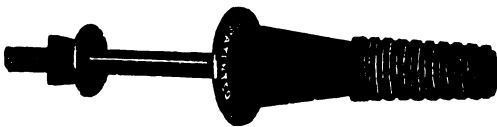
| Trade Word. | Price. |
|------------------------------------|--------------|
| Cable. From factory, per 1000..... | each, \$0.16 |

Patent Steel Pin No. 2.

With porcelain base for high voltage lines.



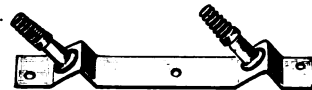
| Trade Word. | Price. |
|---------------------------------------|--------------|
| Cackling. From factory, per 1000..... | each, \$0.20 |

INDESTRUCTIBLE STEEL
INSULATING PIN.

| Trade Word. | Price. |
|--------------------------------------|--------------|
| Flutter. From factory, per 1000..... | each, \$0.15 |

GALVANIZED UPRIGHT SIDE
BRACKETS.

Complete with pin.



| Trade Word. | Price. |
|---------------------------------------|--------------|
| Fluttering. 2 pins, from factory..... | each, \$0.60 |
| Fluviate. 4 " " " "..... | " 1.10 |

IRON PINS.



Malleable.

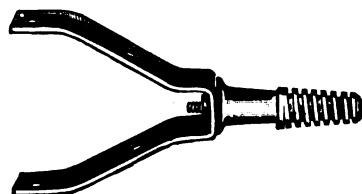


Iron.

| Trade Word. | Price. |
|--|--------------|
| Callow. 1½ inch, Solid, per 100..... | each, \$0.15 |
| Camello. 1½ inch, Malleable iron, per 100..... | each, \$0.18 |

GALVANIZED RIDGE IRONS
FOR POLE TOPS.

Complete with pin.



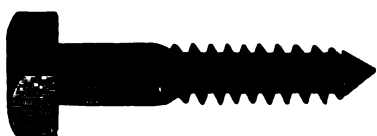
| Trade Word. | Price. |
|------------------------------|--------------|
| Fluviatic. From factory..... | each, \$0.50 |

CONSTRUCTION MATERIAL.

LAG SCREWS.

CARRIAGE BOLTS.

For attaching cross arm braces to cross arms.



Gimlet point.

| Trade Word. | Diameter inches. | Length inches. | Price. |
|--------------|------------------|-----------------|-----------------|
| Prejudge. | $\frac{5}{16}$ | 2 $\frac{1}{2}$ | per 100, \$2.55 |
| Canal. | $\frac{5}{16}$ | 3 | " 2.70 |
| Prejudging. | $\frac{5}{16}$ | 4 | " 3.00 |
| Prejudgment. | $\frac{3}{8}$ | 2 $\frac{1}{2}$ | " 3.06 |
| Prejudice. | $\frac{3}{8}$ | 3 | " 3.24 |
| Canary. | $\frac{3}{8}$ | 4 | " 3.60 |
| Prelacy. | $\frac{1}{2}$ | 3 | " 4.65 |
| Cancer. | $\frac{1}{2}$ | 4 | " 5.25 |
| Prelate. | $\frac{1}{2}$ | 6 | " 6.45 |
| Candy. | $\frac{1}{2}$ | 7 | " 7.05 |
| Canine. | $\frac{1}{2}$ | 8 | " 7.65 |



| Trade Word. | Diameter inches. | Length inches. | Price. |
|-------------|------------------|-----------------|-----------------|
| Prelatic. | $\frac{5}{16}$ | 2 $\frac{1}{2}$ | per 100, \$1.40 |
| Prelatical. | $\frac{5}{16}$ | 3 | " 1.50 |
| Prelatist. | $\frac{5}{16}$ | 3 $\frac{1}{2}$ | " 1.60 |
| Calonical. | $\frac{5}{16}$ | 4 | " 1.70 |
| Prelection. | $\frac{3}{8}$ | 2 $\frac{1}{2}$ | " 1.64 |
| Prelector. | $\frac{3}{8}$ | 3 $\frac{1}{2}$ | " 1.92 |
| Canonize. | $\frac{3}{8}$ | 4 | " 2.06 |
| Canopy. | $\frac{1}{2}$ | 4 | " 3.40 |

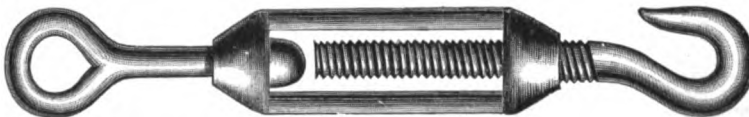
Prices include bolts and nuts.

IRON WASHERS.

| Trade Word. | Diameter hole, | $\frac{3}{8}$ inch to fit | $\frac{5}{16}$ inch bolt. | per lb., | Keg lots. | 1000 lb. lots. |
|-------------|----------------|---------------------------|---------------------------|----------|-----------|----------------|
| Cannibal. | " | " | $\frac{5}{16}$ | " | \$0.10 | \$0.12 |
| Cannon. | " | $\frac{7}{16}$ | " | " | .08 | .10 |
| Cannonade. | " | $\frac{9}{16}$ | $\frac{1}{2}$ | " | .06 | .08 |

WROUGHT IRON TURNBUCKLES.

With hook and swivel eye, or with two hooks or eyes.



| Trade Word. | Outside diameter of thread. | Length in the clear between heads. | Galvanized. | Japanned. |
|-------------|-----------------------------|------------------------------------|---------------|---------------|
| Prancing. | $\frac{3}{8}$ inch. | 6 inch. | each, \$ 1.30 | each, \$ 1.10 |
| Prate. | $\frac{7}{16}$ " | 7 " | " 1.50 | " 1.25 |
| Prating. | $\frac{1}{2}$ " | 8 " | " 1.80 | " 1.55 |
| Prattle. | $\frac{9}{16}$ " | 9 " | " 2.10 | " 1.85 |
| Prattling. | $\frac{5}{8}$ " | 10 " | " 2.40 | " 2.00 |
| Prayer. | $\frac{3}{4}$ " | 12 " | " 3.50 | " 2.75 |
| Preach. | $\frac{7}{8}$ " | 13 " | " 4.25 | " 3.50 |
| Preaching. | 1 " | 14 " | " 5.50 | " 4.25 |
| Preamble. | 1 $\frac{1}{8}$ " | 15 " | " 7.00 | " 5.25 |
| Prebend. | 1 $\frac{1}{4}$ " | 16 " | " 8.25 | " 6.25 |
| Precarious. | 1 $\frac{3}{8}$ " | 17 " | " 9.50 | " 7.50 |
| Precative. | 1 $\frac{1}{2}$ " | 18 " | " 11.00 | " 9.00 |
| Precaution. | 1 $\frac{3}{4}$ " | 20 " | " 15.00 | " 13.00 |
| Precede. | 1 $\frac{3}{4}$ " | 20 " | " 20.00 | " 17.00 |
| Precentor. | 2 " | 20 " | " 28.00 | " 25.00 |

Hook and swivel eye japanned turnbuckle always shipped unless otherwise specified when ordering.

All the above carried in Chicago stock.

CONSTRUCTION MATERIAL.

POLE STEPS.

Plain and Galvanized.



Long coned point.—This is the standard pole step. Packed in kegs of 500.

| Trade Word. | | Price. | Price |
|-------------|--|-----------------|-------------------|
| Canteen. | Diameter $\frac{1}{4}$ inch, length $9\frac{1}{4}$ inches, plain | per 100, \$4.00 | Per 1000, \$35.00 |
| Canter. | " " " " $9\frac{1}{4}$ " galvanized | " 100, 5.60 | " 1000, 50.00 |

WELDED EYE BOLTS.



For suspension and guy wires.

| Trade Word. | | Price. |
|-------------|-----------------------------|--------------|
| Cankery. | Size $\frac{1}{2}$ x12..... | each, \$0.08 |

CROSS-ARM BRACE.

Punched for $\frac{1}{4}$ inch lag screws at one end and $\frac{3}{8}$ inch at the other.

| Trade Word. | | Price. | Price. | Trade Word. | | Price. | Price |
|-------------|---------------------------------|----------|-----------|-------------|---------------------------------|----------|-----------|
| | | Per 100. | Per 1000. | | | Per 100. | Per 1000. |
| Camel. | Length 20 inches, japanned..... | \$5.50 | \$50.00 | Cameo. | Length 25 inches, japanned..... | \$ 8.00 | \$75.00 |
| Camelia. | " 20 " galvanized..... | 7.00 | 62.50 | Camera. | " 25 " galvanized..... | 10.50 | 95.00 |

POLE PROTECTION STRIPS.

Galvanized.

Made of galvanized iron 2 inches wide by 4 feet long, concaved throughout so as to conform approximately to the rounding shape of the pole.

| Trade Word. | | Price |
|-------------|--------------|---------|
| Camping. | Per 100..... | \$12.00 |

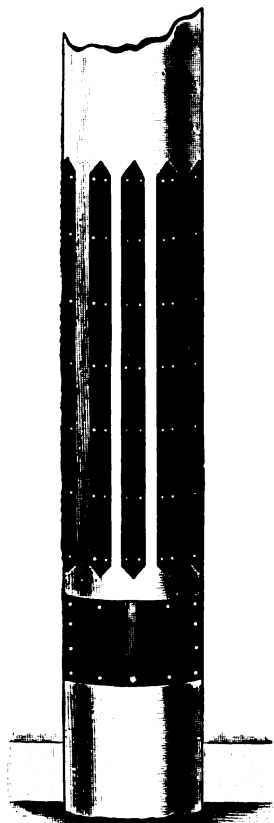
HUB OR BUTT PLATES.

Galvanized.

Rolled to a diameter of 14 inches, but may be opened out or closed to conform to the size of the pole.

| Trade Word. | | Price. |
|-------------|---|--------------|
| Fluxion. | Hub or butt plates, $15 \times 18 \times \frac{1}{4}$ inch..... | each, \$1.20 |
| Fluxional. | " " " " $18 \times 20 \times \frac{1}{4}$ " | " 1.50 |

Pole protection strips are not punched. Hub or butt plates punched for 20 penny wire nails.



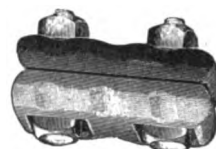
Shows how applied to pole.

CONSTRUCTION MATERIAL.

GALVANIZED GUY CLAMPS.



3 Bolt.

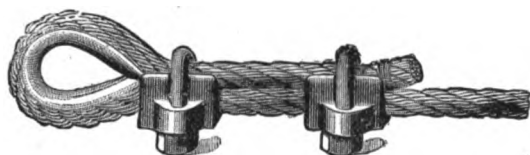


2 Bolt.

Trade Word.

Caged. 3 bolt takes wire rope $\frac{5}{16}$ to $\frac{1}{2}$ inch each, \$0.40
 Caged. 2 " " " " $\frac{5}{16}$ and $\frac{3}{8}$ inch " .20

CROSBY CLIP.

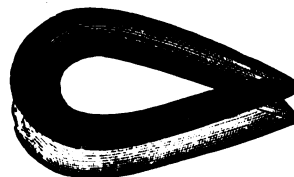


(PATENTED.)



THE "CROSBY" WIRE ROPE CLIP

STEEL GALVANIZED THIMBLES.



| Trade Word. | For dia. Rope. | Price. | Trade Word. | Dia. of Rope. | Price. |
|-------------|--------------------|--------------|-------------|--------------------|--------------|
| Chance. | $\frac{1}{4}$ inch | each, \$0.25 | Chalked. | $\frac{1}{4}$ inch | each, \$0.16 |
| Change. | $\frac{5}{16}$ " | .25 | Charm. | $\frac{1}{8}$ " | .16 |
| Changed. | $\frac{3}{8}$ " | .25 | Charmed. | $\frac{3}{8}$ " | .16 |
| Chant. | $\frac{1}{2}$ " | .30 | Cheat. | $\frac{1}{2}$ " | .18 |
| Chanted. | $\frac{5}{8}$ " | .35 | Cheated. | $\frac{5}{8}$ " | .22 |
| Chalk. | $\frac{3}{4}$ " | .40 | Check. | $\frac{3}{4}$ " | .24 |

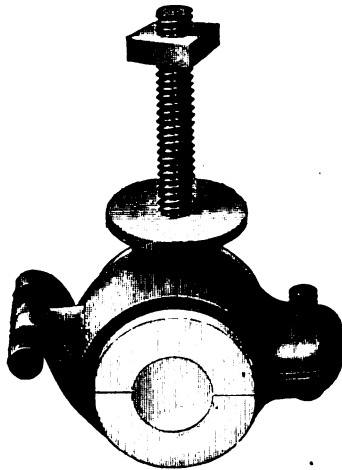
C. E. CO. GALVANIZED GUY RODS.



| Trade Word. | Galvanized steel, $\frac{5}{8}$ in. round, 6 feet long | Price. |
|-------------|--|--------|
| Checked. | per lb., | \$0.12 |
| Cheer. | 8 " | .12 |
| Cheered. | 9 " | .12 |
| Chewed. | 6 " | .12 |
| Chided. | 8 " | .12 |
| Chin. | 9 " | .12 |

These rods are made up complete with thread nut and washer, having welded eye
 $3\frac{3}{4}$ in. long x $\frac{1}{2}$ in. wide.

CONSTRUCTION MATERIAL.



FLETCHER'S GEM WIRE HOLDER.

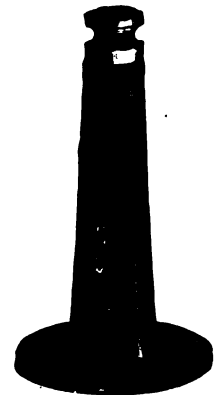
With bolt and nut.

| Trade Word. | | | Price. |
|-------------|----------------------------|----------|---------|
| Carded. | $\frac{1}{4}$ inch opening | per 100, | \$24.00 |
| Care. | $\frac{3}{8}$ " " | " | 35.00 |
| Cementing. | $\frac{1}{2}$ " " | " | 45.00 |
| Cenobate. | $\frac{3}{4}$ " " | " | 55.00 |
| Censure. | 1 " " | " | 55.00 |
| Censuring. | $1\frac{1}{4}$ " " | " | 120.00 |
| Careened. | $1\frac{1}{2}$ " " | " | 140.00 |
| Censurably. | 2 " " | " | 180.00 |

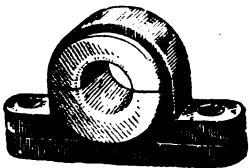
FLETCHER'S IRON PIN.

With porcelain knob.

| Trade Word. | | | Price. |
|-------------|----------------------------|---|--------|
| Celebrator. | With No. 6 porcelain knob. | Length $4\frac{1}{2}$ in., diam. base 3 in. each, | \$0.60 |
| Carol. | " " $\frac{1}{4}$ " " | " $5\frac{1}{4}$ " " " $3\frac{1}{2}$ " " " | .60 |



PORCELAIN CLAMP INSULATORS.

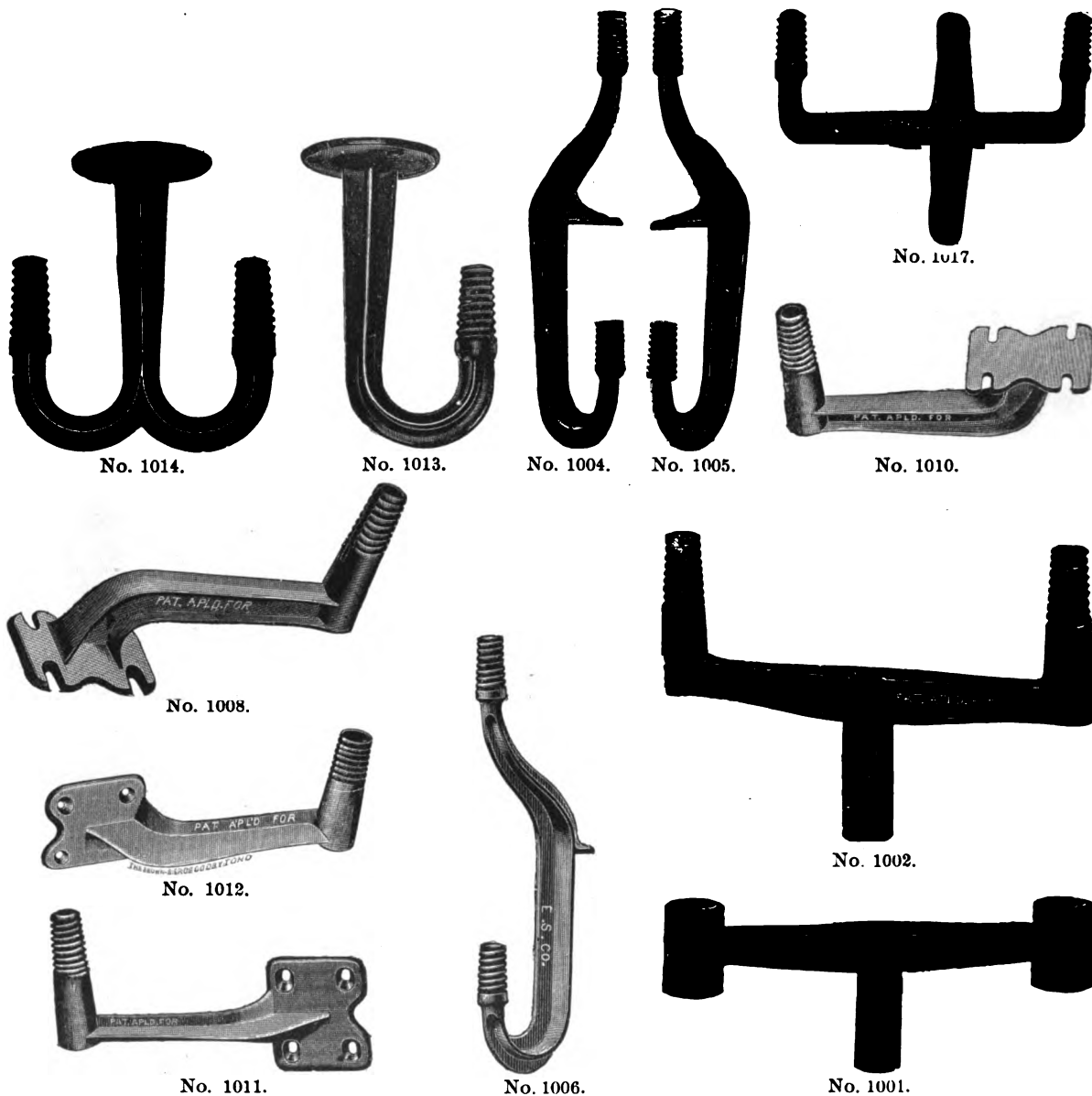


Nos. 9228 to 9244 inclusive are for the porcelain insulators complete (two pieces) and **do not** include the iron clamps.

| Trade Word. | No. | Size of Hole. | Price 100 Lots. | Trade Word. | No. | Size of Hole. | Price 100 Lots. |
|-------------|-------|--|-----------------|------------------|-------|---------------------|-----------------|
| Fly. | 9228. | $\frac{1}{8}$ inch | \$10.00 | Flyleaf. | 9237. | $1\frac{3}{8}$ inch | \$13.50 |
| Flown. | 9229. | 1 " " | 10.00 | Flywheel. | 9238. | $1\frac{1}{2}$ " " | 13.50 |
| Flyer. | 9230. | $1\frac{1}{8}$ " " | 10.00 | Foal. | 9243. | $1\frac{3}{4}$ " " | 20.00 |
| Flying. | 9236. | $1\frac{1}{4}$ " " | 13.50 | Foam. | 9244. | 2 " " | 20.00 |
| Neptune. | 9361. | Iron clamp, complete for Nos. 9228, 9229, 9230 | | | | | 30.00 |
| Nerve. | 9360. | " " " | " " " | 9236, 9237, 9238 | | | 35.00 |
| Nervous. | 9359. | " " " | " " " | 9243, 9244 | | | 40.00 |

CONSTRUCTION MATERIAL.,

IRON BRACKETS.



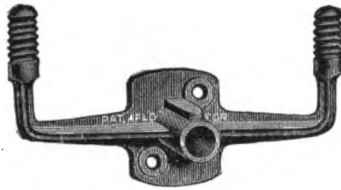
| Trade Word. | No. | | Price. |
|-------------|-------|-------------------------------------|--------|
| Cake. | 1001. | Removable pin, break arm.....each, | \$0.36 |
| Cajole. | 1002. | Permanent " " 1½ inch..... | .36 |
| Cadence. | 1004. | Loop or spreader bracket, left..... | .35 |
| Cadet. | 1005. | " " " " right..... | .35 |
| Cage. | 1006. | " " " " forward..... | .35 |
| Calico. | 1008. | Roof bracket offset..... | .28 |
| Calibre. | 1010. | Cornice bracket permanent pin..... | .25 |
| Calling. | 1011. | Lateral bracket, right..... | .20 |
| Call. | 1012. | " " " left..... | .20 |
| Calote. | 1013. | Ceiling bracket, single..... | .25 |
| Calotype. | 1014. | " " " double..... | .36 |
| Calming. | 1017. | Combination bracket..... | .30 |

CONSTRUCTION MATERIAL.

IRON BRACKETS.



No. 1007.



No. 1016.



No. 1015.



No. 1019.

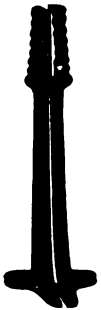
| Trade Word. | No. | | Price. |
|-------------|------|--------------------------|--------|
| Calf. | 1007 | Wall bracket.....each, | \$0.18 |
| Calmer. | 1016 | Reflector bracket..... " | .50 |

| Trade Word. | No. | | Price. |
|-------------|------|-----------------------------|--------|
| Calorific. | 1015 | Converter bracket.....each, | \$0.30 |
| Cam. | 1019 | Hood bracket, mall. iron, " | .20 |

MALLEABLE IRON BRACKETS.

The screw end for glass insulator is adjustable, and will not break the glass by expansion in hot weather.

Roof Bracket.



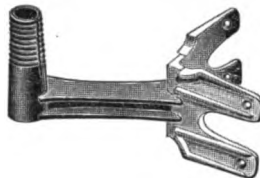
| Trade Word. | Price. |
|-----------------|--------|
| Calyx. Each.... | \$0.15 |
| In 100 lots. | |

Wall Bracket.



| Trade Word. | Price. |
|----------------|--------|
| Calx. Each.... | \$0.15 |
| In 100 lots. | |

Corner Bracket.



| Trade Word. | Price. |
|-------------------|--------|
| Capered. Each.... | \$0.40 |

Cornice Bracket.

Removable pin.



| Trade Word. | Price. |
|----------------------|--------|
| Captured. Each. | \$0.34 |

MALLEABLE IRON DRIVE BRACKETS.

The malleable drive brackets are triangular and are designed to fit at junction of three bricks in wall, the bottom of blade being flat and the points of the triangle so shaped as to conform to the mortar joints.

Right Forward Drive Bracket.



| Trade Word. | Price. |
|----------------|--------|
| Can. Each..... | \$0.20 |

Thimble Drive Bracket.



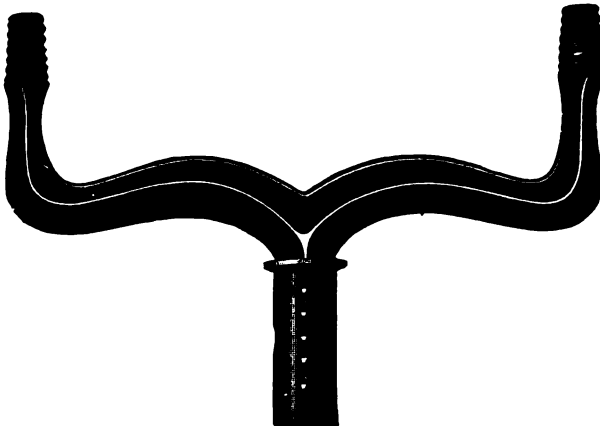
| Trade Word. | Price. |
|--------------------|--------|
| Canning. Each..... | \$0.24 |

Upright Drive Bracket.

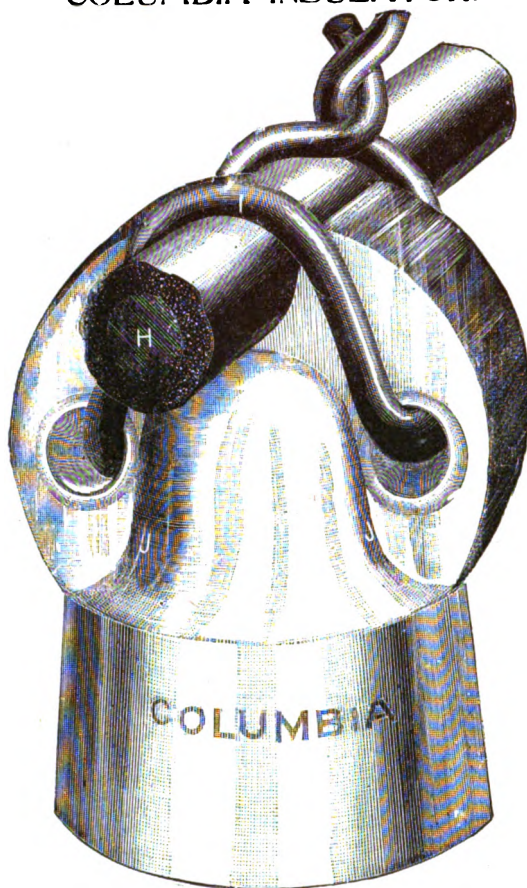


| Trade Word. | Price. |
|-------------------|--------|
| Canned. Each..... | \$0.20 |

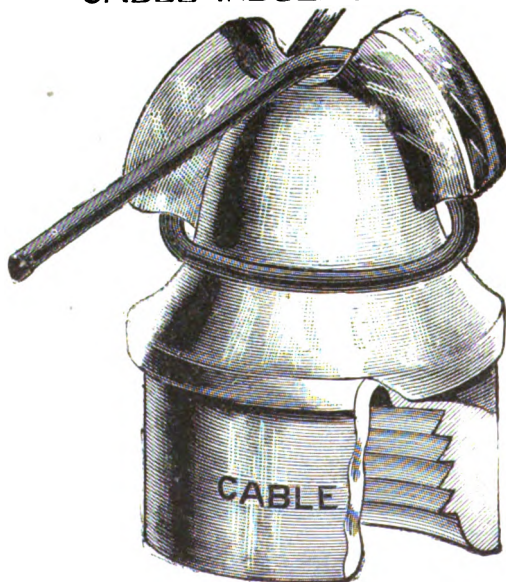
Break Arm.



| Trade Word. | Price. |
|--|--------|
| Cumber. Break arm, solid pin.....each, | \$0.60 |
| Optical. " " removable pin..... " | .60 |

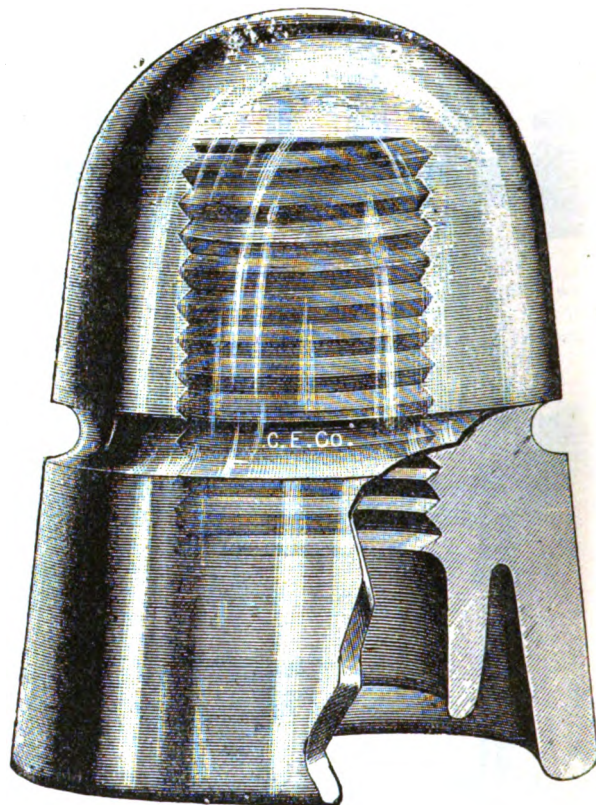
CONSTRUCTION MATERIAL.**COLUMBIA INSULATOR.**

| Trade Word. | | Price |
|-------------|--|----------|
| Cashed. | Double petticoat, with groove for 1¼ inch cable in 1000 lots from factory..... | \$400.00 |
| Cast. | Single petticoat, with groove for 1¼ inch cable in 1000 lots from Chicago stock..... | 250.00 |
| Casted. | In 1000 lots from factory..... | 240.00 |

CABLE INSULATOR.

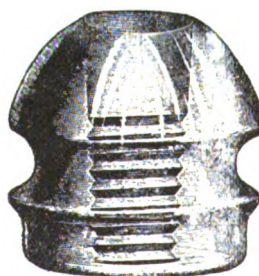
| Trade Word. | | Price. |
|-------------|---------------------------------------|----------|
| Cashed. | From Chicago stock, in 1000 lots..... | \$120.00 |

Height 5 inches, width 3¼ inches.

W. U. DOUBLE PETTICOAT INSULATOR.

| Trade Word. | | Price. |
|-------------|--------------------------------------|---------|
| Cashed. | From Chicago stock in 1000 lots..... | \$70.00 |
| Cause. | " factory in 1000 lots..... | 65.00 |

Cut full size.

BROWN'S DUPLEX GLASS INSULATORS.

Deep groove.



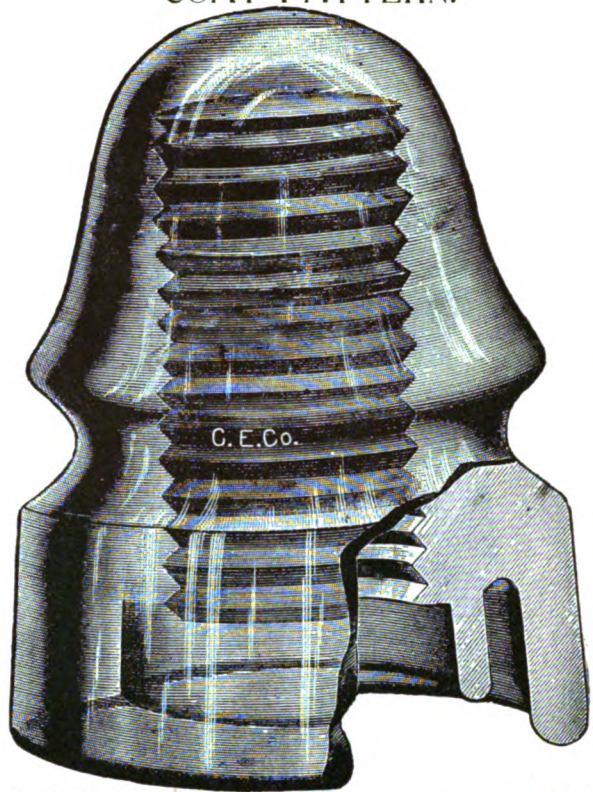
Pony.

Cuts half size.

| Trade Word. | | Price. |
|-------------|---------------------------------------|-------------|
| Cashed. | From Chicago stock, "deep groove..... | each \$0.09 |
| Chain. | " " " pony..... | each 08 |

CONSTRUCTION MATERIAL.
THE DEEP GROOVE PATTERN. DEEP GROOVE DOUBLE PETTI-
COAT PATTERN.

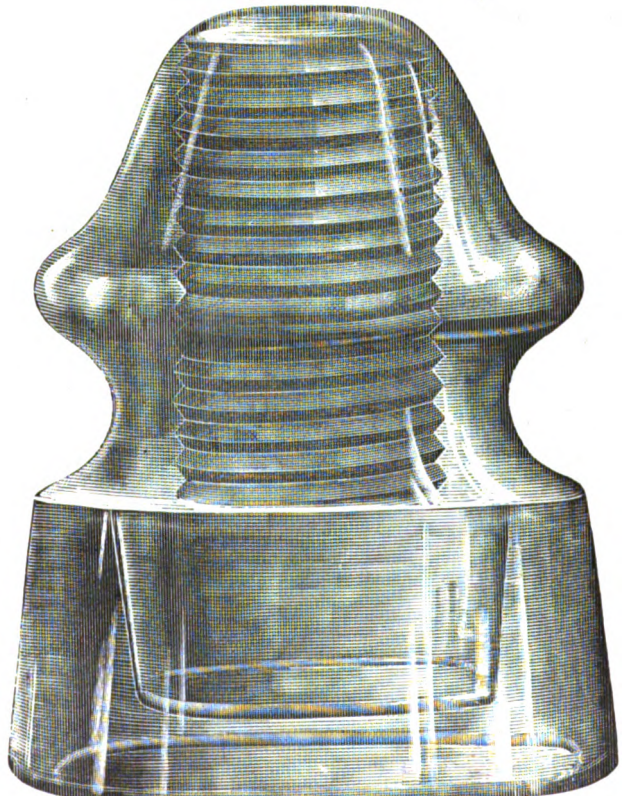
DEEP GROOVE DOUBLE PETTI-
COAT PATTERN.



| Trade Word. | Cut full size. | Price. |
|-------------|--------------------------|-----------------------|
| Cede. | From Chicago stock | in 1000 lots, \$80 00 |
| " | " " " | in bbl. lots. 65.00 |

STREET RAILWAY DEEP
GROOVE DOUBLE PETTICOAT.

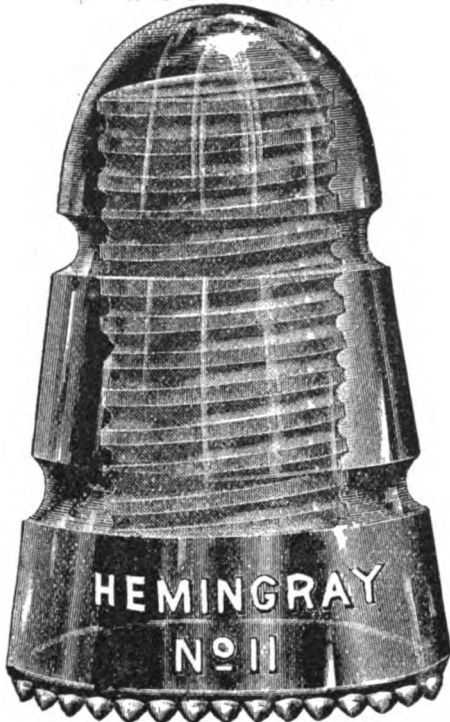
Takes a $\frac{3}{4}$ inch cable. Extra heavy.



| Trade Word. | Cut full size. | Price. |
|-------------|-------------------------|-----------------------|
| Cedar. | From Chicago stock..... | In 1000 lots, \$65.00 |

CONSTRUCTION MATERIAL.

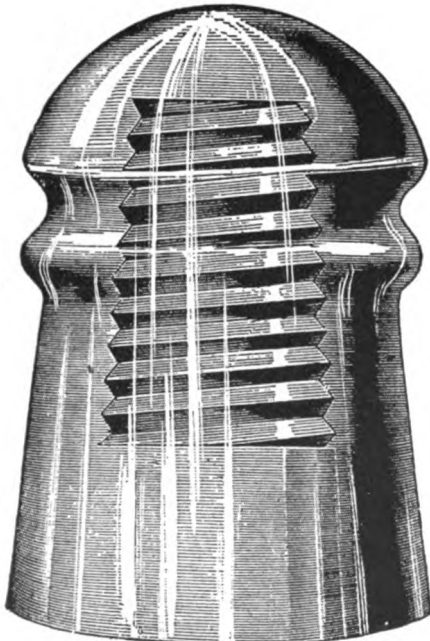
DOUBLE GROOVE PONY INSULATOR.



| | | |
|-------------|---|---------|
| Trade Word. | Cut full size. | Price. |
| Waft. | From Chicago stock in 1,000 lots, | \$30.00 |

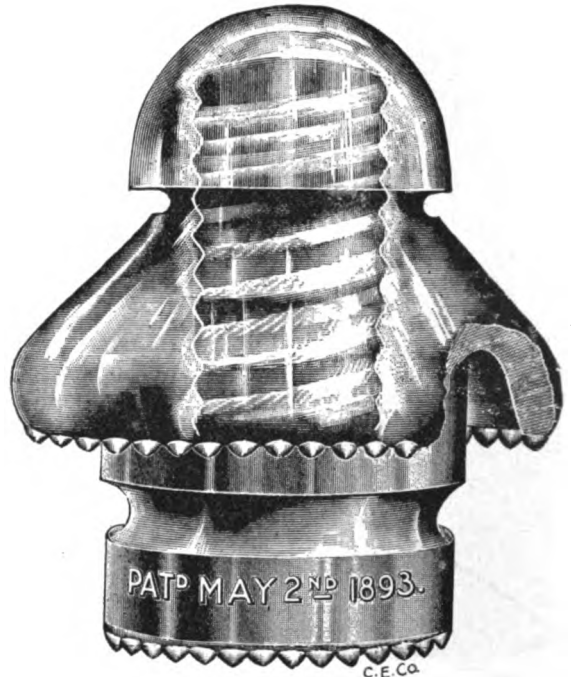
The teats on the lower rim of these insulators not only greatly increase the insulating surface but also attract the water into drops which fall away instead of "creeping" over the surface of inner petticoat and thence to the pins.

**"PONY" PATTERN SCREW
GLASS INSULATOR.**



| Trade Word. | Cut full size. | Price. |
|-------------|---------------------------------------|---------|
| Ceding. | From Chicago stock.....in 1,000 lots, | \$25.00 |
| | " " "in bbl. lots, | 28.00 |

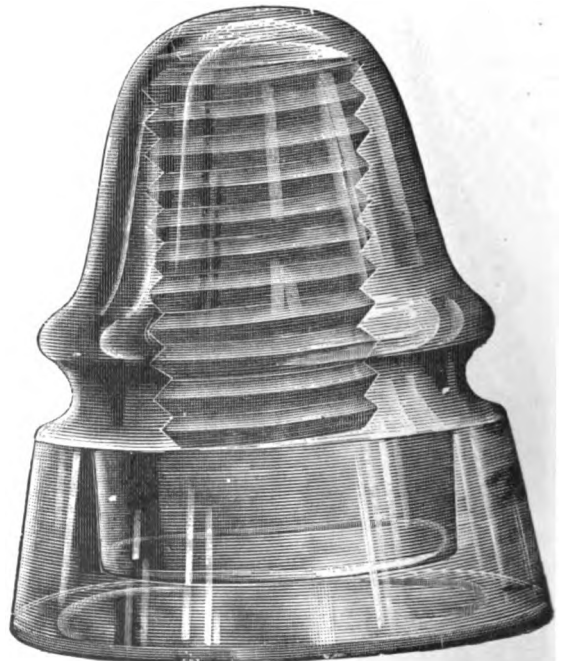
TRANSPOSITION INSULATOR.



| Trade Word. | Size, dia. 4 in., height 5 in. | Price. |
|-------------|---------------------------------------|----------|
| Wage. | From Chicago stock.....in 1,000 lots, | \$200.00 |
| Wagered. | " factory....." " | 180.00 |

DEEP GROOVE, DOUBLE PETTI-
COAT, PONY.

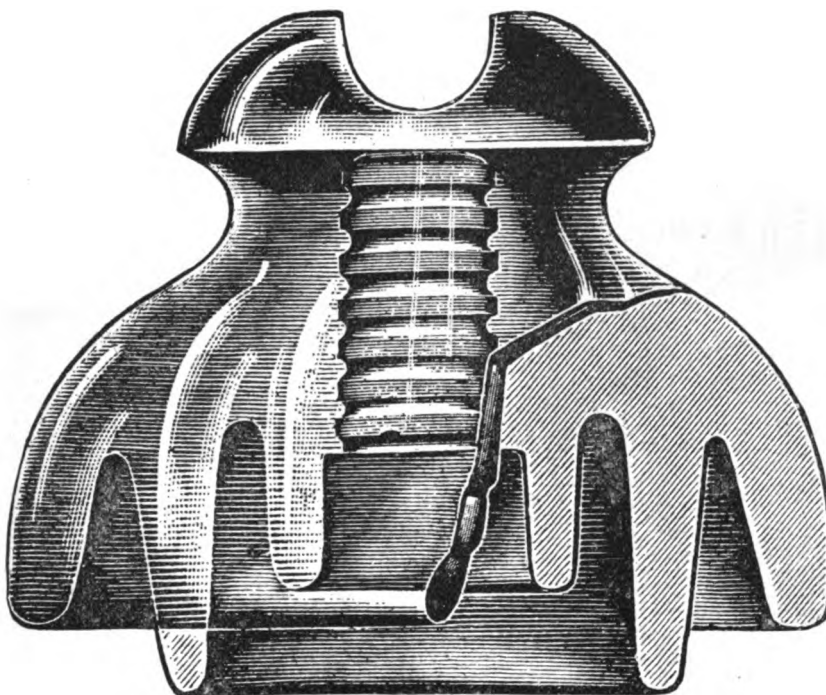
For telephone and light electric light wiring.



| | |
|--|---------------|
| Trade Word. | Price. |
| Celebrate. From Chicago stock.....in 1,000 lots, | 845.00 |

CONSTRUCTION MATERIAL.

LOCKE TRIPLE PETTICOAT GLASS INSULATOR.



(Reduced size)

No. 16.

5 $\frac{1}{4}$ inches diameter, weight 4 $\frac{1}{4}$ pounds.

Trade Word.

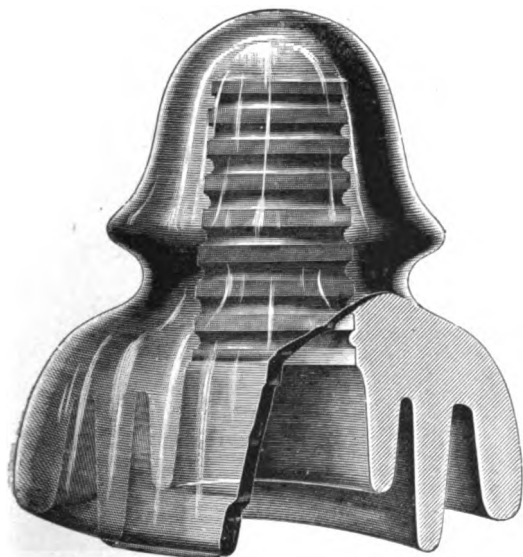
Optician. $\frac{1}{2}$

From factory.....

Price. per 100, \$40.00

Locke Triple Petticoat Glass Insulator.

Locke Transposition Glass Insulator.



(Reduced size.)

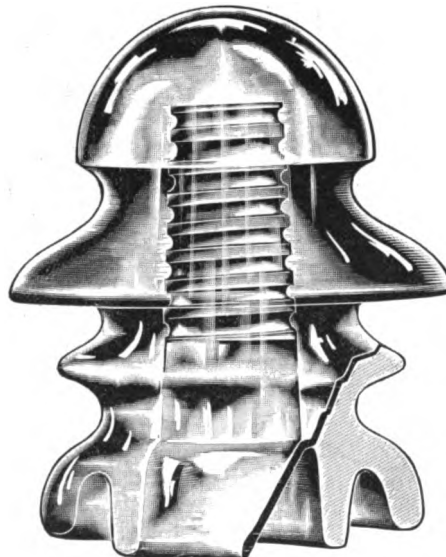
No. 15.

4 $\frac{1}{4}$ inches in diameter, weight 1 $\frac{3}{4}$ pounds.

Trade Word.

Price.

Optimate. From factory.....per 1000, \$175.00



No. 18.

3 $\frac{3}{4}$ inches diameter, 4 $\frac{1}{4}$ inches high, weight 1 $\frac{1}{4}$ lbs.

Trade Word.

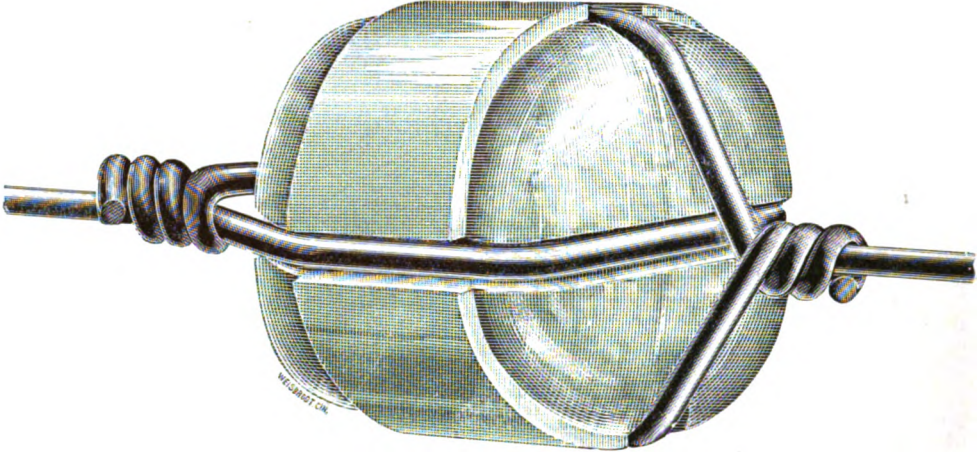
Price.

Optimism. From factory, in 1000 lots....each, \$0.12

" " " 100 " " .13

CONSTRUCTION MATERIAL.

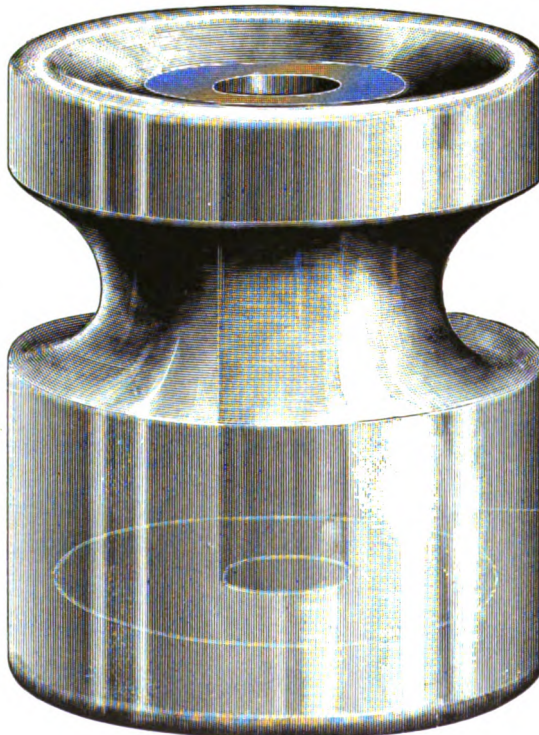
THE CENTRAL GLASS CIRCUIT BREAKER.



The strongest circuit breaker made.

| Trade Word. | | Price. | |
|--------------|--------------------------|-----------|----------|
| Cementatory. | From Chicago stock | per 1000, | \$120.00 |
| Choked. | " factory " | " 100, | 15.00 |

GLASS INSULATING KNOB.



No. 8.
Cut full size.

| Trade Word. | | Price. | |
|-------------|--------------------------|--------------|---------|
| Chopped. | From factory stock | in 100 lots, | \$11.00 |

CONSTRUCTION MATERIAL.

GLASS INSULATING KNOBS.

These knobs are used in damp places instead of porcelain insulators.



No. 6.

Cut full size.

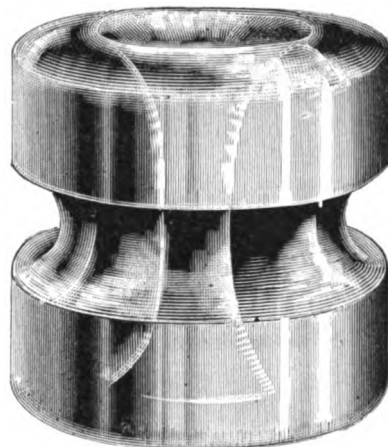
Trade Word.

Cellarer. From Chicago stock . . . \$120.00

Price
Per 1000.

Price
Per 100.

\$15.00



No. 3.

Cut full size.

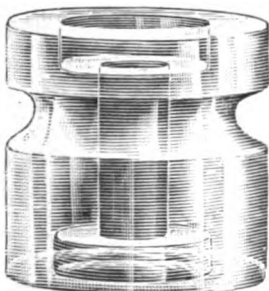
Trade Word.

Cellarest. From Chicago stock . . . \$36.00

Price
Per 1000.

Price
Per 100.

\$4.00



No. 1.

Cut full size.

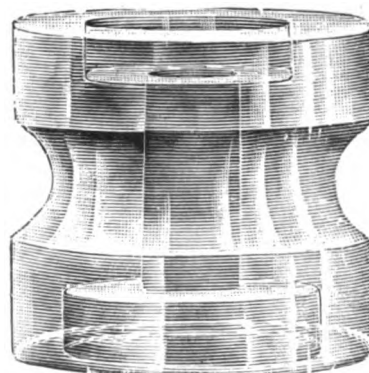
Trade Word.

Celebrated. From Chicago stock . . . \$19.00

Price
Per 1000.

Price
Per 100.

\$2.20



No. 2.

Cut full size.

Trade Word.

Celebrating. From Chicago stock . . . \$30.00

Price
Per 1000.

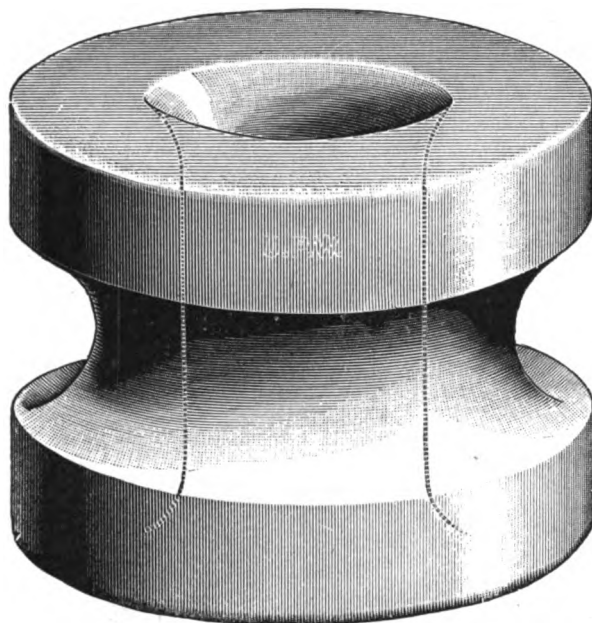
Price
Per 100.

\$3.50

CONSTRUCTION MATERIAL.

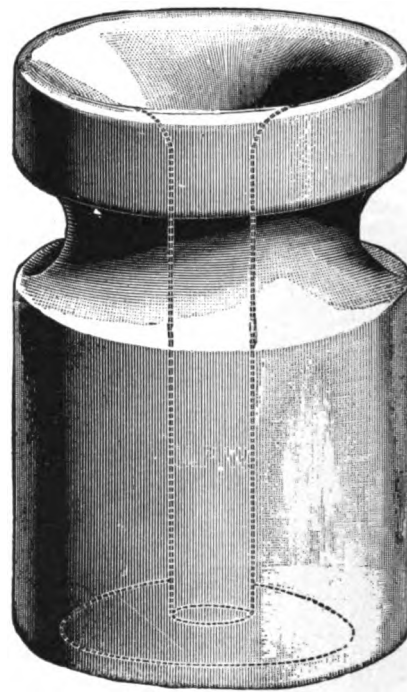
PORCELAIN INSULATORS.

Cuts full size.



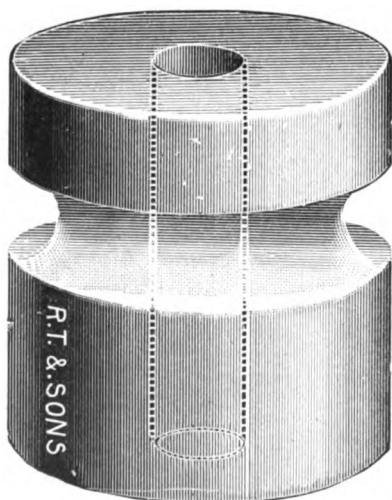
No. 0.

| Trade Word. | | Price. |
|-------------|---------------|----------|
| Casual. | Per 1000..... | \$130.00 |
| | " 100..... | 15 00 |



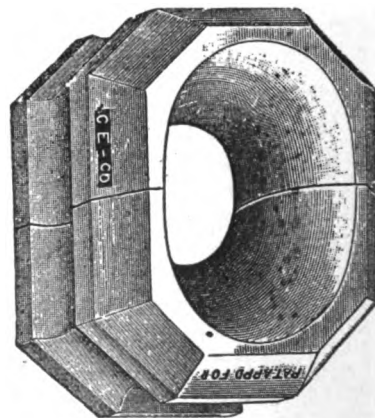
No. 1.

| Trade Word. | | Price. |
|-------------|---------------|---------|
| Casual. | Per 1000..... | \$90.00 |
| | " 100..... | 10.00 |



No. 2.

| Trade Word. | | Price. |
|-------------|---------------|---------|
| Casual. | Per 1000..... | \$36 00 |
| | " 100..... | 4.50 |

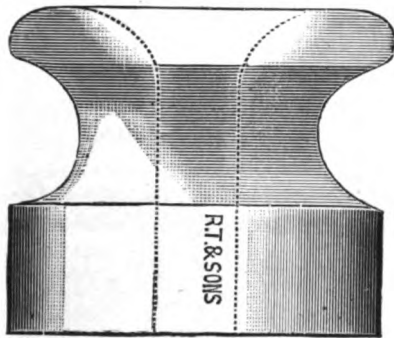


Victor split.

| Trade Word. | | Price. |
|-------------|---------------|---------|
| Cawing. | Per 1000..... | \$60.00 |
| | " 100..... | 7.00 |

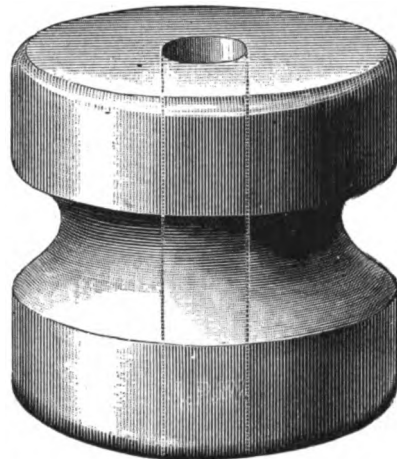
CONSTRUCTION MATERIAL. PORCELAIN INSULATORS.

Cuts full size.



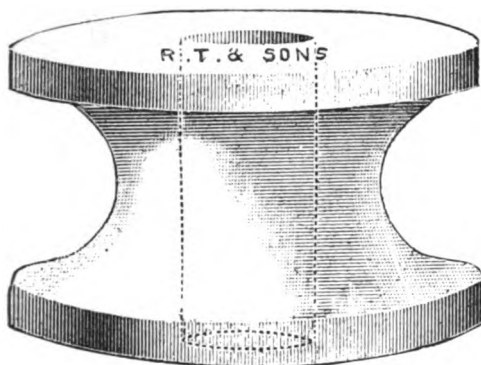
Standard No. 3, our No. 5; wide groove.

| Trade Word. | | Price. |
|-------------|---------------|---------|
| Catacomb. | Per 1000..... | \$28.00 |
| " | 100..... | 3.00 |



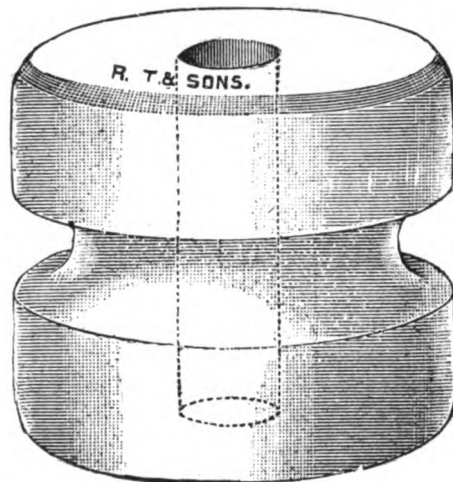
No. 24.

| Trade Word. | | Price. |
|-------------|---------------|---------|
| Catechism. | Per 1000..... | \$32.50 |
| " | 100..... | 3.75 |



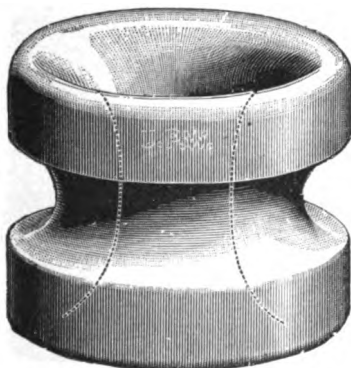
No. 25.

| Trade Word. | | Price. |
|-------------|---------------|---------|
| Clog. | Per 1000..... | \$70.00 |
| " | 100..... | 7.50 |



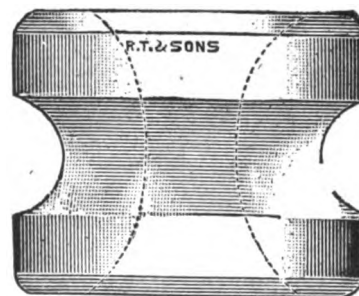
No. 26.

| Trade Word. | | Price. |
|-------------|---------------|---------|
| Club. | Per 1000..... | \$70.00 |
| " | 100..... | 7.50 |



No. 36.

| Trade Word. | | Price. |
|--------------|---------------|---------|
| Categorical. | Per 1000..... | \$36.00 |
| " | 100..... | 4.00 |



No. 69.

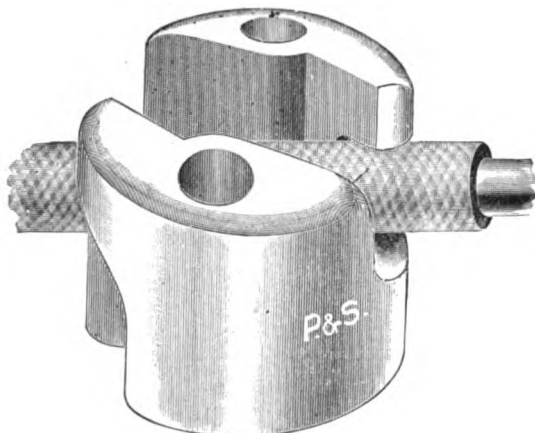
| Trade Word. | | Price. |
|-------------|---------------|---------|
| Catechised. | Per 1000..... | \$40.00 |
| " | 100..... | 4.50 |

CONSTRUCTION MATERIAL.

PORCELAIN INSULATORS.

P. and S. Wiring Insulator.

Large and small size.

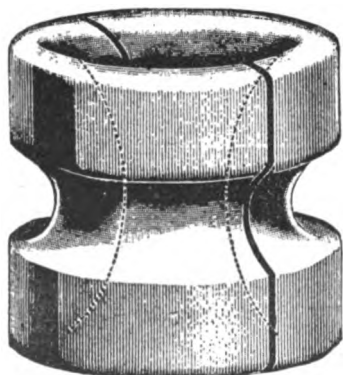


Large size holds wire and cables from $\frac{1}{2}$ to $\frac{3}{4}$ inch diam.

| Trade Word. | Price. |
|-----------------------------|---------|
| Ceiled. Glazed.....per 100, | \$12.00 |
| Small Size. | |

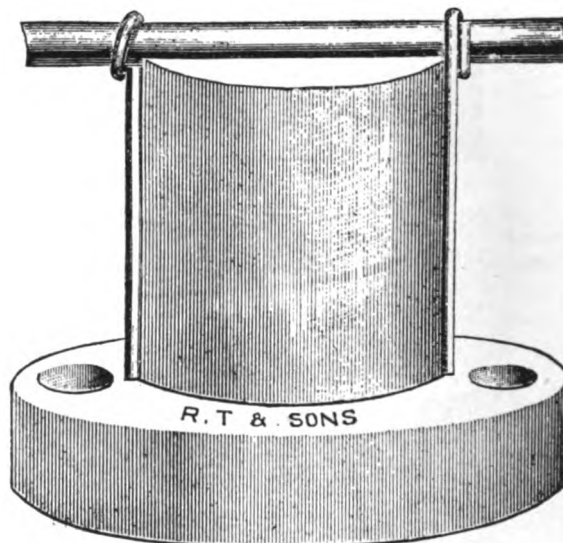
| Trade Word. | Price. |
|---|--------|
| Cathartic. No. 1-Glazed for No. 6 or No. 8 wire.....per 100, | \$3.60 |
| Cathartine. No. 2-Glazed for No. 10 to No. 16 wire.....per 100, | \$2.88 |

No. 37 Split Insulator.



| Trade Word. | Price. |
|---------------------------|---------|
| Compounded. Per 1000..... | \$50.00 |
| " 100..... | 5.50 |

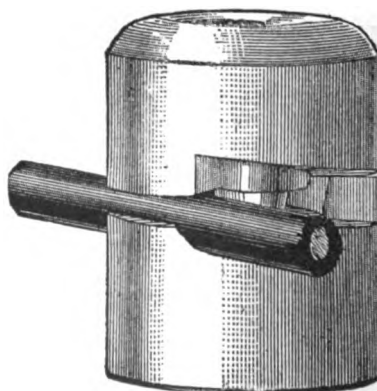
E. L. Porcelain Insulator.



The "E. L."

| Trade Word. | Price. |
|---------------------------|----------|
| Catenarian. Per 1000..... | \$100.00 |
| " 100..... | 11.00 |

Security Porcelain Insulator.

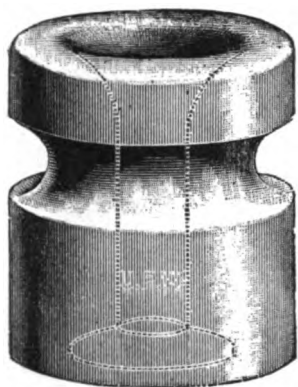


| Trade Word. | Price. |
|------------------------|---------|
| Conceal. Per 1000..... | \$20.00 |
| " 100..... | 2.25 |

CONSTRUCTION MATERIAL.

PORCELAIN INSULATORS.

Cuts full size.

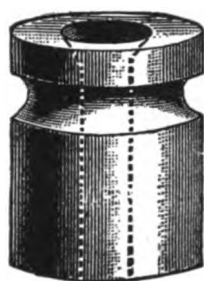


No. 4.

| Trade Word. | Price. |
|--------------------------------------|---------|
| Catapult. Per 1000 in full bbls..... | \$10.00 |
| Per 1000 in 1000 lots | 11.00 |

No. 4 Clay Insulator.

| | |
|----------------------------|--------|
| Per 1000 in full bbls..... | \$8.00 |
| Per 1000 in 1000 lots..... | 9.00 |



Standard No. 5, our No. 3.

| Trade Word. | Price. |
|--------------------------------------|--------|
| Cataract. Per 1000 in full bbls..... | \$8.00 |
| Per 1000 in 1000 lots..... | 9.00 |

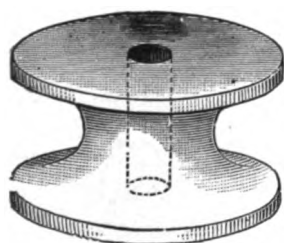
No. 5 Clay Insulator.

| | |
|----------------------------|--------|
| Per 1000 in full bbls..... | \$5.50 |
| Per 1000 in 1000 lots..... | 5.70 |



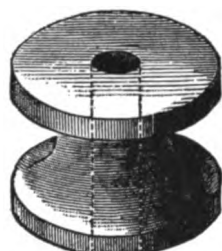
No. 49.

| Trade Word. | Price. |
|--------------------------|---------|
| Category. Per 1000 | \$16.00 |
| Per 100 | 2.00 |



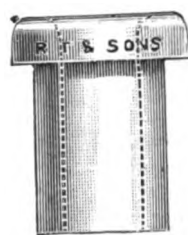
No. 12.

| Trade Word. | Price. |
|------------------------|---------|
| Commend. Per 1000..... | \$22.00 |
| Per 100..... | 2.50 |



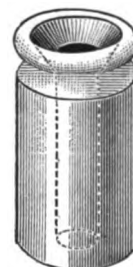
No. 11.

| Trade Word. | Price. |
|---------------------------|---------|
| Catchpenny. Per 1000..... | \$20.00 |
| Per 100..... | 2.25 |



No. 45.

| Trade Word. | Price. |
|------------------------|---------|
| Compare. Per 1000..... | \$22.50 |
| Per 100..... | 2.50 |



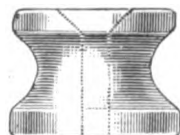
No. 9.

| Trade Word. | Price. |
|-------------------------|---------|
| Catching. Per 1000..... | \$15.00 |
| Per 100.... | 1.75 |



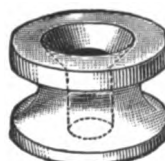
No. 44.

| Trade Word. | Price. |
|----------------------|---------|
| Cater. Per 1000..... | \$15.00 |
| Per 100 | 1.75 |



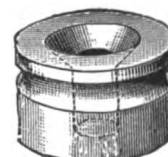
No. 6.

| Trade Word. | Price. |
|------------------------|--------|
| Catarrh. Per 1000..... | \$9.00 |
| Per 100..... | 1.10 |



No. 7.

| Trade Word. | Price. |
|----------------------------|--------|
| Catastrophy. Per 1000..... | \$9.00 |
| Per 100... 1.10 | |

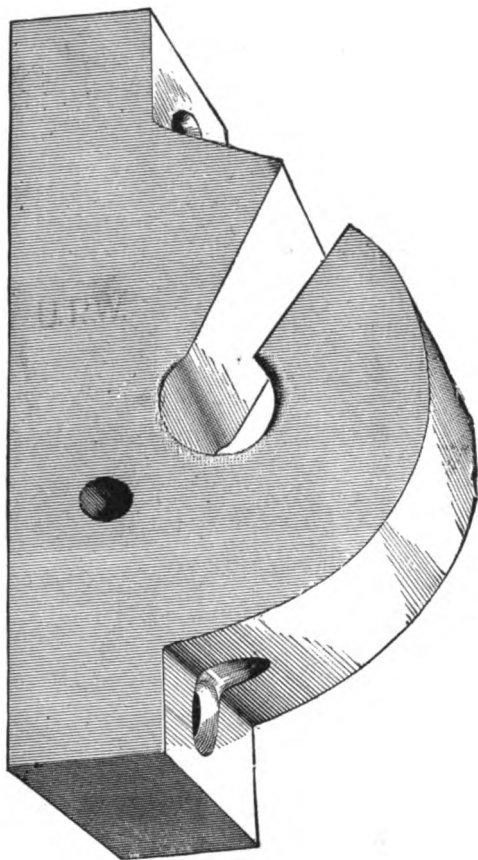


No. 8.

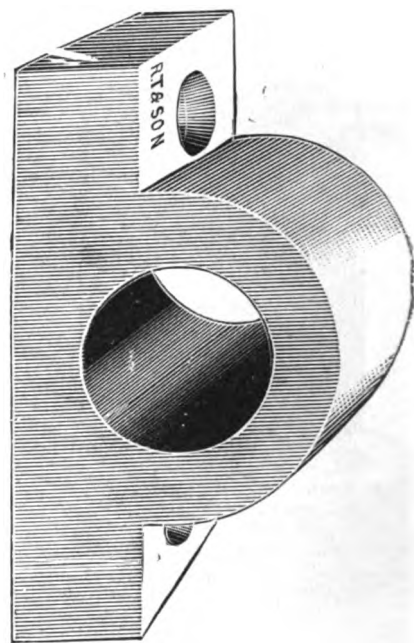
| Trade Word. | Price. |
|----------------------|---------|
| Catch. Per 1000..... | \$10.00 |
| Per 100..... | 1.25 |

CONSTRUCTION MATERIAL.

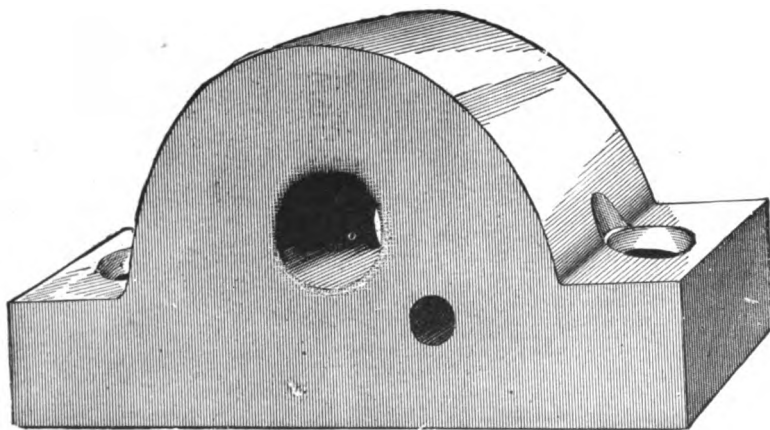
PORCELAIN BRACKETS.



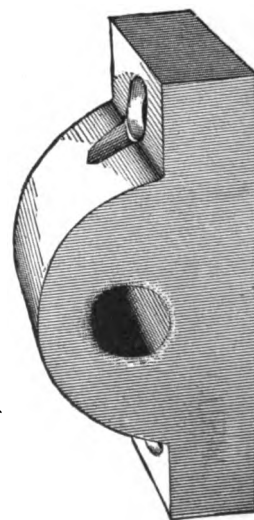
No. 80.



No. 79



No. 81.



No. 82.

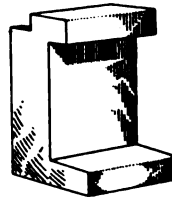
| Trade Word. | No. | Price. |
|-------------|---------|-----------------|
| Caveat. | 82..... | per 100, \$7.00 |
| Cavern. | 81..... | " 8.50 |
| Cavernous. | 80..... | " 15.00 |
| Cavil | 79..... | " 9.00 |

CONSTRUCTION MATERIAL.

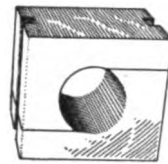
PORCELAIN RACK INSULATORS FOR STATION USE.



Insulators in rack.



For bus-bars.



For cables.

These insulators are used in light and power stations for supporting cables and bus-bars. They are supported by iron wall racks, into which a number of insulators fit and allow the carrying of numerous cables in a small space.

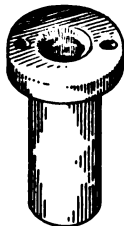
Both halves of these insulators are included in the catalogue number.

| Trade Word. | Cat. No. | Size. | List Price. | Trade Word. | Cat. No. | Size. | List Price. |
|-------------|----------|-------------------------------|------------------|-------------|----------|--------------------------------|------------------|
| Option. | 69003. | For $\frac{3}{4}$ in. cable.. | per 100, \$30.00 | Orange. | 69001. | For $1\frac{1}{4}$ in. cable.. | per 100, \$40.00 |
| Optional. | 69002. | " 1 " | " " 30.00 | Oration. | 69006. | " 2 " | " " 40.00 |
| Orace. | 69000. | " $1\frac{1}{4}$ " | " " 30.00 | Orator. | 69004 | For bus-bars..... | " " 70.00 |
| Souny. | 69005. | " $1\frac{1}{2}$ " | " " 30.00 | | | | |

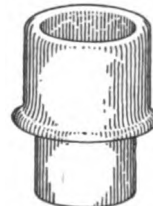
INSULATOR RACKS.

| Trade Word. | Cat. No. | For Cat. Nos. 69003, 69002-69000-69005. | Net Price. | Trade Word. | Cat. No. | For Cat. Nos. 69001, 69006. | Net Price. |
|-------------|----------|---|------------|-------------|----------|-----------------------------|------------|
| Oratory. | 9516. | For 3 insulators, | \$0.30 | Orchestra. | 9520. | For 3 insulators, | \$0.30 |
| Orb. | 9517. | " 5 " | 1.50 | Orchio. | 9521. | " 5 " | 1.50 |
| Orbit. | 9518. | " 8 " | 2.40 | Ordain. | 9522. | " 8 " | 2.40 |
| Orchard. | 9519. | " 12 " | 3.60 | Ordeal. | 9523. | " 12 " | 3.60 |

PORCELAIN FLOOR INSULATORS.



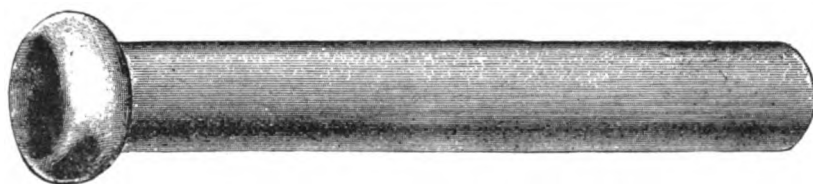
Cat. No. 9327.



Cat. Nos. 16822-16824.

| Trade Word. | Cat. No. | Diam. Hole. | Diam. Shank. | Length under Head. | Price. |
|-------------|----------|-------------------|--------------------|--------------------|------------------|
| Onion. | 9327. | $\frac{5}{8}$ in. | $1\frac{3}{8}$ in. | $3\frac{3}{4}$ in. | per 100, \$20.00 |
| Onset. | 16824. | $1\frac{1}{2}$ " | $3\frac{3}{4}$ " | 3 " | " 150.00 |
| Onslaught. | 16823. | $1\frac{1}{4}$ " | $3\frac{1}{4}$ " | 3 " | " 150.00 |
| Onward. | 16822. | $2\frac{1}{4}$ " | $3\frac{3}{4}$ " | 3 " | " 140.00 |

CONSTRUCTION MATERIAL.

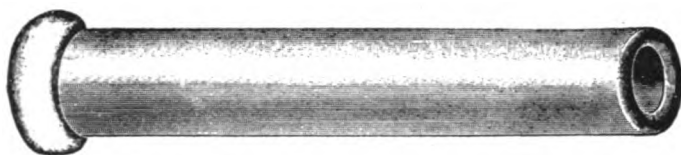


WHITE CHINA WIRING TUBES.

Highly vitrified.

Prices per Thousand in 1000 Lots.

| Trade Word | Length Under Head | Inside Diameter. | Outside Diameter. | Conclave. 2 inches. | Concluded. 3 inches. | Conduct. 4 inches. | Control 6 inches. | Contented. 8 inches. | Conferred. 10 inches. | Confined. 12 inches. |
|------------|-------------------|---------------------|---------------------|------------------------|-------------------------|-----------------------|----------------------|-------------------------|--------------------------|-------------------------|
| Anchorage | | $\frac{1}{8}$ inch. | $\frac{3}{8}$ inch. | \$6.50 | \$ 7.00 | \$ 8.40 | \$16.50 | \$30.00 | \$40.00 | \$ 60.00 |
| Abounds | | $\frac{3}{8}$ " | $\frac{3}{8}$ " | | 8.40 | 9.80 | 19.50 | 35.00 | 45.00 | 65.00 |
| Abuse | | $\frac{1}{2}$ " | $\frac{3}{8}$ " | | 12.60 | 14.60 | 25.50 | 40.00 | 50.00 | 70.00 |
| Acorn | | $\frac{1}{2}$ " | 1 " | | 15.00 | 18.00 | 28.00 | 45.00 | 60.00 | 80.00 |
| Actor | | $\frac{3}{4}$ " | 1 $\frac{1}{4}$ " | | 19.00 | 21.00 | 37.00 | 50.00 | 70.00 | 90.00 |
| Aerobat | | 1 " | 1 $\frac{3}{4}$ " | | 24.00 | 30.00 | 40.00 | 70.00 | 80.00 | 110.00 |

1 $\frac{1}{4}$ and 2 inch tubes carried in stock subject to special prices.

BROWN CHINA WIRING TUBES.

The truest to gauge high grade tubes on the market.

Prices per Thousand in 1000 Lots.

| Trade Word | Length Under Head | Inside Diameter. | Outside Diameter. | Banjo. 2 inches. | Bank. 3 inches. | Barber. 4 inches. | B. rge. 6 inches. |
|------------|-------------------|---------------------|---------------------|---------------------|--------------------|----------------------|----------------------|
| Almond | | $\frac{1}{8}$ inch. | $\frac{3}{8}$ inch. | \$4.70 | \$ 5.00 | \$ 6.50 | \$13.00 |
| Aloft | | $\frac{3}{8}$ " | $\frac{3}{8}$ " | | 6.50 | 7.50 | 15.00 |
| Amazon | | $\frac{1}{2}$ " | $\frac{3}{8}$ " | | 7.80 | 9.50 | 18.30 |
| Apron | | $\frac{3}{8}$ " | 1 " | | 9.40 | 11.40 | 20.90 |
| Combed | | $\frac{3}{8}$ " | 1 $\frac{1}{4}$ " | | 13.80 | 15.00 | 27.10 |
| Commanded | | 1 " | 1 $\frac{3}{4}$ " | | 18.00 | 21.00 | 30.00 |

SPECIAL LENGTH BROWN CHINA WIRING TUBES.

Prices per Thousand.

| Trade Word | Length Under Head | Inside Diameter. | Outside Diameter. | Barn. 8 inches. | Basket. 10 inches. | Batch. 12 inches. | Beast. 14 inches. | Beer. 16 inches. | Best. 18 inches. | Bleek. 20 inches. | Boast. 24 inches. |
|------------|-------------------|---------------------|---------------------|--------------------|-----------------------|----------------------|----------------------|---------------------|---------------------|----------------------|----------------------|
| Clogged | | $\frac{1}{8}$ inch. | $\frac{3}{8}$ inch. | \$32.00 | \$45.00 | \$ 60.00 | \$ 80.00 | \$100.00 | \$120.00 | \$135.00 | \$165.00 |
| Clubbed | | $\frac{3}{8}$ " | $\frac{3}{8}$ " | 40.00 | 55.00 | 80.00 | 100.00 | 125.00 | 135.00 | 145.00 | 175.00 |
| Coax | | $\frac{1}{2}$ " | $\frac{3}{8}$ " | 50.00 | 65.00 | 90.00 | 105.00 | 130.00 | 145.00 | 150.00 | 200.00 |
| Coaxed | | $\frac{3}{8}$ " | 1 " | 55.00 | 70.00 | 100.00 | 120.00 | 135.00 | 155.00 | 175.00 | 225.00 |
| Coin | | $\frac{3}{8}$ " | 1 $\frac{1}{4}$ " | 60.00 | 80.00 | 105.00 | 130.00 | 155.00 | 175.00 | 200.00 | 250.00 |
| Coined | | 1 " | 1 $\frac{3}{4}$ " | 70.00 | 90.00 | 130.00 | 150.00 | 180.00 | 200.00 | 250.00 | 300.00 |

1 $\frac{1}{4}$ and 2 inch tubes carried in stock subject to special price.

AWNING INSULATOR.

| Trade Word. | Convenient where wires pass awnings or over cornices, etc. | Prices. |
|-------------|--|---------|
| Sophia. | Each | \$0.08. |

LONG CURVED AWNING INSULATORS.

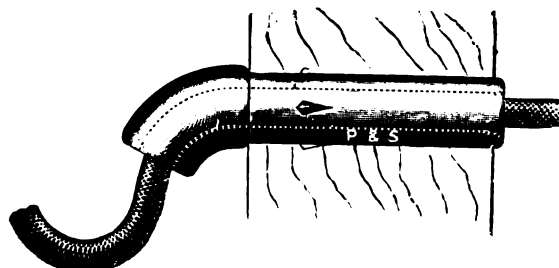
Extra long, 19 inches around, about 16 in. across the curve, has $\frac{5}{8}$ in. hole, 1 $\frac{1}{2}$ in. outside diameter.
 Trade Word. Price.
 Span. Unglazed..... each, \$0.60.



WINDOW TUBE CURVED END.

| Trade Word. | Each | Price. |
|-------------|------|--------|
| Speak. | | \$0.08 |

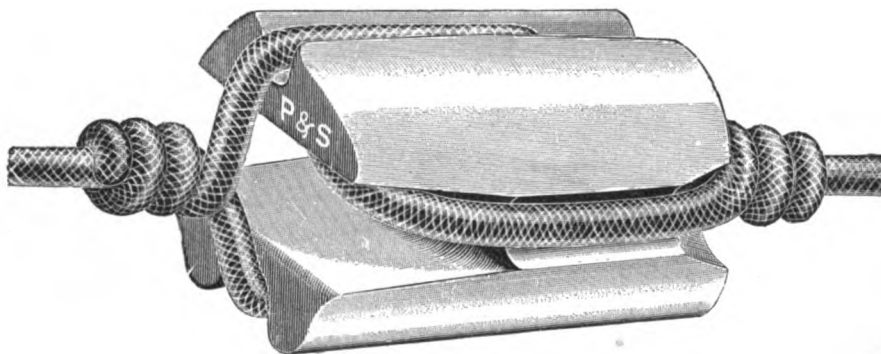
LONG CURVED END TUBE.

Has $\frac{5}{8}$ inch hole, 1 $\frac{1}{2}$ inches outside diameter.

| Length Under Head, in inches | 6 | 8 | 10 | 12 | 14 | 16 | 18 |
|------------------------------|----------------------|----------------------|----------------------|----------------------|--------|--------|--------|
| Unglazed | \$0.17 $\frac{1}{2}$ | \$0.25 $\frac{1}{2}$ | \$0.34 $\frac{1}{2}$ | \$0.49 $\frac{1}{2}$ | \$0.57 | \$0.69 | \$0.81 |

CONSTRUCTION MATERIAL.

P. AND S. CIRCUIT BREAKER.



This insulator possesses great strength and high insulation qualities. Made to withstand the breaking strain of any wire that can be used with it.

Trade Word.

| | | | |
|-----------|-----------------|--------------|--------|
| Cedulous. | Small size..... | in 100 lots, | \$4.80 |
| Cedart. | Large "..... | " " | 8.00 |

Price.

The small size is often used as a tree insulator.

SIMPLEX TREE INSULATOR.

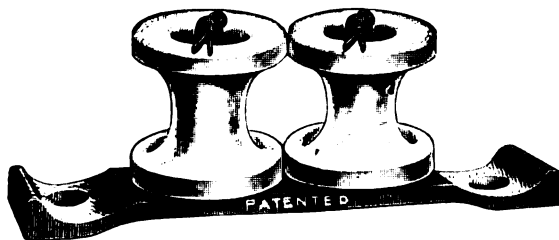
Cut half size.

Made of best malleable iron, galvanized, with porcelain insulators. These are free to turn, hence permit motion of the branch without injury to the wire. $\frac{3}{4}$ inch space between insulators.

Trade Word.

| | | |
|------------|--------------|--------|
| Nastiness. | Per doz..... | \$4.00 |
|------------|--------------|--------|

Price.



SWINGING TREE INSULATOR.

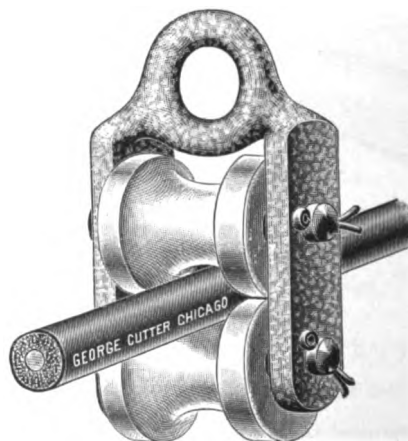
The rollers are of porcelain and being removable the device can be applied to lines already in use.

Takes wire to $\frac{3}{4}$ inch outside diameter.

Trade Word.

| | | |
|---------|--------------|--------|
| Narrow. | Per doz..... | \$4.00 |
|---------|--------------|--------|

Price.



CONSTRUCTION MATERIAL.

OKONITE TAPE.



Okonite tape is of unquestioned superiority, and the demand has steadily increased as the crucial test of time demonstrates its permanent value. It has proven all we claim for it, being thoroughly waterproof and a perfect insulating medium. It is not injured by exposure to weather, and does not deteriorate when submitted to extreme changes in temperature, and is not affected by commercial acids or alkalies, qualities possessed by no other tape in the market.

We make it in any width desired, but keep in stock $\frac{1}{4}$ and $\frac{3}{4}$ inch only. Put up in packages of $\frac{1}{2}$ pound, "Full Weight," with our trade-mark plainly stamped upon each.

Beware of imitations. None genuine unless put up as above described. Made in **black** only.

Trade Word.

Price.

Assassinate. Width, $\frac{3}{4}$ inch.....per lb., \$1.30

MANSON TAPE.

$\frac{3}{4}$ inch size, put up in tin boxes.

The foundation for our Manson tape is a heavy cloth fabric, having a peculiar weave and made solely for our use. This cloth is first thoroughly saturated with an insulating and preservative compound, and afterward served with an adhesive dressing, the latter resisting the several climatic changes, as well as preventing corrosion, oxidation or unwrapping. Manson tape is made in **black** and **white**.



We Claim:

That it is the best cloth tape in the market.
That it will not oxidize the wire.
That it has no superior.
That the price is as low as many inferior tapes now being offered in the market.
It is a first-class article in every respect.



We make special widths to order, but carry the $\frac{3}{4}$, 1, $1\frac{1}{4}$, $1\frac{1}{2}$ and 2 inch widths always in stock. The $\frac{3}{4}$ inch comes in $\frac{1}{2}$ pound rolls, all others in about 1 pound.

We supply the black Manson tape in neat tin boxes convenient to carry in pocket, $\frac{3}{4}$ inch width.

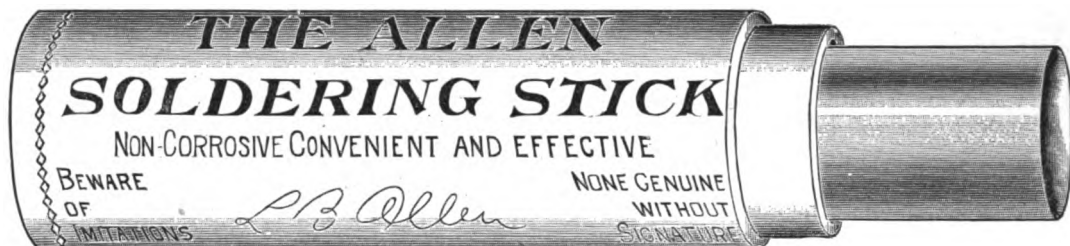
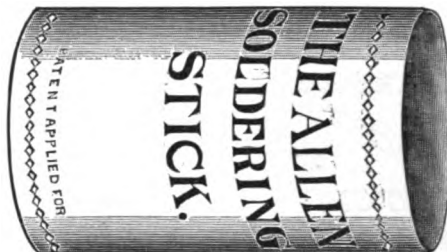
| White. | | | | Black. | | | |
|--------------|--------------------------|----------|--------|-------------|--------------------------|----------|--------|
| Trade Word. | Width, | | Price. | Trade Word. | Width, | | Price. |
| Derange. | $\frac{3}{4}$ inch..... | per lb., | \$0.90 | Derision. | $\frac{3}{4}$ inch..... | per lb., | \$0.90 |
| Deranged. | " 1 " | " | .90 | Derivation. | " 1 " | " | .90 |
| Derangement. | " $1\frac{1}{4}$ " | " | .90 | Derive. | " $1\frac{1}{4}$ " | " | .90 |
| Deride. | " $1\frac{1}{2}$ " | " | .90 | Derogation. | " $1\frac{1}{2}$ " | " | .90 |
| Deriding. | " 2 " | " | .90 | Derogatory. | " 2 " | " | .90 |
| Derided. | In tin box..... | each, | .12 | Derived. | In tin box..... | each, | .12 |

FRICTION TAPES.

These tapes are made in $\frac{1}{2}$, $\frac{3}{4}$, 1, $1\frac{1}{4}$, 2 and 3 inch widths; $\frac{1}{2}$ and $\frac{3}{4}$ inch only in stock.

| Trade Word. | | Price. | Trade Word. | | Price. |
|-------------|-----------------------|-----------------|-------------|----------------------|-----------------|
| Coveted. | Grimshaw, black | per lb., \$1.30 | Danced. | Tenax, white.. | per lb., \$0.70 |
| Covered. | " white..... | " 1.20 | Dared. | Acme, black..... | " .65 |
| Dealed. | P. and B., black..... | " .90 | Darting. | " white | " .65 |
| Debate. | Tenax, black..... | " .70 | Dashed. | Kerite tape.... | per roll, 1.40 |

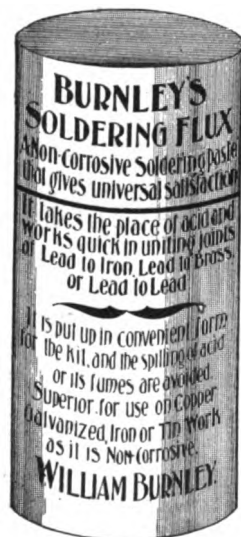
CONSTRUCTION MATERIAL.

ALLEN
SOLDERING STICK.

Trade Word.

Carolled. Per stick.....each, \$0.27

Price.



BURNLEY SOLDERING PASTE.

Trade Word.

| | | |
|----------|------------------------------|--------------|
| Coughed. | $\frac{1}{4}$ lb. boxes..... | each, \$0.20 |
| Court. | $\frac{1}{2}$ " | " .40 |
| Clashed. | 10 lb. pkgs. or pail..... | per lb., .50 |

Price.

SOLDER.

Trade Word.

| | | |
|---------------|------------------------|-----------------|
| Conjoint. | Triangular solder..... | per lb., \$0.30 |
| Conjointly. | Wire " | " .30 |
| Conjointless. | Bar " | " .30 |

Price

Special prices in reels of 100 lbs.

YEAGER SOLDERING SALTS.

Trade Word.

| | | |
|--------------|-----------------------------------|--------|
| Conjunct. | Per $\frac{1}{2}$ lb. bottle | \$0.60 |
| Conjunction. | " 1 " | .75 |
| Conjunctive. | " 5 " | 3.60 |

Price.

CENTRAL SOLDERING SALTS.

Trade Word.

| | | |
|-------------|-----------------------------------|--------------|
| Connation. | Per $\frac{1}{2}$ lb. bottle..... | each, \$0.35 |
| Connatural. | " 1 " | .55 |
| Sofa. | " 5 " | per lb. .40 |

Price.

CONSTRUCTION MATERIAL.

CHATTERTON'S COMPOUND.

It is evident from the constantly increasing demand for the above named article that the trade appreciates, and is determined to continue using the same, to the exclusion of inferior grades.

We import it directly from the English manufacturers. It is absolutely the best article of the kind on the market.

| Trade Word. | Price. |
|--|-------------------|
| Choose. In $\frac{1}{4}$ pound sticks, imported..... | per pound, \$3.00 |
| Soak. domestic..... | " 1.80 |

GALE'S COMMUTATOR COMPOUND.



We have found this to be the best article of its kind on the market.

| Trade Word. | Price. |
|----------------------------------|---------------|
| Cribbed. Per stick..... | each, \$ 1.00 |
| Concurred. Per dozen sticks..... | 10.00 |

ASBESTOS.

This is an article unique in its fire and acid-proof qualities and consequently has many applications in the electrical and mechanical arts. From the fact of its being an insulator and also being heat resisting it becomes a necessity to the electrical business.

The asbestos mill board will meet nearly all the ordinary demands. It is made from $\frac{1}{8}$ to $\frac{1}{2}$ inch thick, and in sheets 40 x 40 inches and 42 x 44 inches. Price per pound, in full sheets, \$0.15. Small lots, \$0.17.

The asbestos building felts are used largely for the insulation and protection of switchboards. Made in thicknesses $\frac{1}{8}$ to $\frac{1}{4}$ inches, and put up in rolls of about 70 pounds and 36 inches wide. Price per pound, in full rolls, \$0.13. Small lots, \$0.15.

HOFFMAN'S ELECTRIC ROD POLISH.

| Trade Word. | Price. |
|-------------------|--------|
| Cab. Per box..... | \$0.24 |

CONSTRUCTION MATERIAL.

P. AND B. COMPOUND.

The color is always black.

General Directions for Applying P. and B. Compound.

Have surfaces clean and dry, and free from grease or oil before applying. When coating, iron rust should be removed, so that the P. and B. Compound can thoroughly penetrate. Use broad brushes free from oil or any other paint. Flow the compound on so as to secure a good coat. Keep brushes in water when not in use; they harden up a little after being used in the compound, but on again being put in the compound soften right up.

| Trade Word. | Grade No. | PRICES PER GALLON. | | | |
|------------------|-----------|--------------------|---------------|------------|----------|
| | | 1 Gallon Pkg. | 5 Gallon Pkg. | ½ Barrels. | Barrels. |
| Christened..... | 1 | \$1.75 | \$1.60 | \$1.55 | \$1.50 |
| Christening..... | 2 | 1.50 | 1.40 | 1.35 | 1.25 |
| Chronograph..... | 3 | 1.20 | 1.10 | 1.05 | 1.00 |

No. 1 is used where an almost immediate dryer and the greatest amount of penetration is desired. It leaves less surface coat than No. 2.

No. 2 Compound is used for all general purposes. Stock always on hand.

No. 3 Paint is used for iron and wood work that is to be placed under ground or submerged.

Giant P. and B. Insulating Paper.

This paper is thoroughly impregnated with P. and B. Compound, so that every fibre is protected. The 1 ply is meeting with much favor for wrapping field coils and armatures.

The 3 ply is a fair substitute for mica.

| Trade Word. | | Price. |
|----------------|--|------------------|
| Christian. | 1 ply, 1000 square feet. 36 inches wide..... | per roll, \$4.00 |
| Christianity. | 2 " 1000 " " 36 " | " 6.00 |
| Christianized. | 3 " 1000 " " 36 " | " 8.00 |

Little Giant P. and B. Insulating Paper.

Put up in rolls 36 inches wide, weighing from 50 to 100 lbs. each. Specially adapted to take the place of linen paper.

| Trade Word. | Price. |
|--------------------------|--------|
| Chromium. Per pound..... | \$0.18 |

P. and B. Armature and Field Coil Varnish.

| Trade Word. | Quart Cans. | ¼ Gal. Pkg. | 1 Gal. Pkg. | 2½ Gal. Pkg. | 5 Gal. Pkg. | PER GALLON. | |
|--------------|-------------|-------------|-------------|--------------|-------------|-------------|----------|
| | | | | | | ½ Barrels. | Barrels. |
| Carpeted.... | \$1.00 | \$1.90 | \$3.50 | \$8.40 | \$16.25 | \$3.00 | \$2.90 |

P. and B. Rubberoid Motor Cloth.

Put up in rolls 29 inches wide, containing 26 yards.

| Trade Word. | Price. |
|------------------------|--------|
| Carting. Per yard..... | \$0.50 |

This material is better than ordinary canvas for street railway uses, being thoroughly saturated with P. and B. Compound rendering it water-proof and practically fire-proof, and is at the same time as pliable as new canvas.

CONSTRUCTION MATERIAL.



B-S ELECTRICAL INSULATING COMPOUND.

Water, acid and alkali proof.

There are three grades of the B-S Compound.

No. 1 is the thinnest, leaves a lighter coat, has more penetration than the others and dries immediately. For general purposes, where a quick drier, having a good body with only one coat, is needed, we recommend the No. 2. The No. 3 has the same body as the No. 2, but leaves a brighter finish, does not dry quite as quickly and is intended for underground and outside work principally.

| | | PER GALLON IN | | | |
|-------------|-----------|----------------|----------------|------------------------|----------|
| Trade Word. | Grade No. | 1 gallon cans. | 5 gallon cans. | $\frac{1}{4}$ barrels. | Barrels. |
| Artist. | 1 | \$1.25 | \$1.15 | \$1.05 | \$1.00 |
| Astor. | 2 | 1.10 | 1.00 | .90 | .85 |
| Attend. | 3 | .90 | .80 | .70 | .65 |

ARMALAC.

This insulating compound is black in color, giving a dead finish. It remains permanently elastic under the heat and vibration of heavy magnet coils. It undergoes no chemical changes whatever either from drying or in the presence of lubricating oil. It is the only known compound which never attacks copper, swells armatures or rots out insulation. It contains no water, alcohol, linseed oil, rubber or free resin acids.

Armamac is shipped in packages bearing full records of laboratory tests made to guarantee constancy of quality.

This material has for years maintained a great record of success all over the world.

Price of Armamac.

| Trade Word. | | Price. |
|-------------|---|--------------------|
| Bounce. | In cans of a capacity of one, two, five or ten gallons..... | per gallon. \$4.00 |
| Broad. | In half barrels of 25 to 30 gallons..... | " " 3.75 |
| Brute. | In full barrels of 45 to 54 gallons..... | " " 3.50 |

ENAMELAC.

Is a high grade insulating and preservative paint, drying very rapidly yet throwing off no foul odors, or poisonous gases. It leaves a highly lustrous finish of great durability.

Enamelac is especially adapted for car trucks, trolley arms and springs, controller boxes (inside and out), fenders, battery work, boiler fronts, switch boards, cables and for all purposes where insulation is desired or protection needed against the action of acids, water and gases.

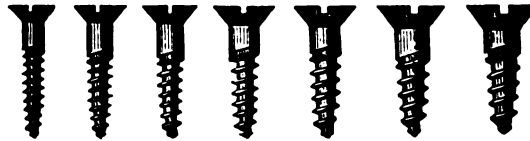
Prices of Enamelac.

| Trade Word. | | Price. |
|-------------|--|--------------------|
| Burn. | In cans, one, two or five gallons..... | per gallon, \$2.75 |
| Bust. | In half barrels of 25 to 30 gallons..... | " " 2.00 |
| Attone. | In full barrels of 45 to 54 gallons..... | " " 1.80 |

CONSTRUCTION MATERIAL.

IRON WOOD SCREWS, ROUND AND FLAT HEADS.

All other kinds of screws carried in stock.

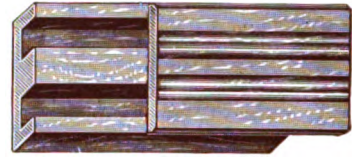
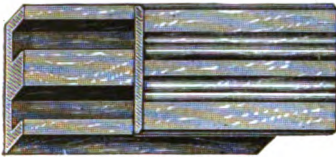


PRICES BY THE GROSS.

| No. | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 20 | 22 | 24 | 26 | 28 | 30 |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| In. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. |
| $\frac{1}{4}$ | 40 | 40 | 40 | 40 | 40 | | | | | | | | | | | | | | | | | | | | |
| $\frac{3}{8}$ | 40 | 40 | 40 | 40 | 40 | 40 | 41 | 48 | 55 | 62 | | | | | | | | | | | | | | | |
| $\frac{1}{2}$ | | 40 | 40 | 40 | 40 | 41 | 45 | 52 | 59 | 66 | 73 | 80 | 87 | | | | | | | | | | | | |
| $\frac{5}{8}$ | | 40 | 40 | 40 | 40 | 43 | 49 | 56 | 63 | 70 | 77 | 84 | 91 | 98 | 110 | | | | | | | | | | |
| $\frac{3}{4}$ | | | 40 | 41 | 41 | 46 | 53 | 60 | 67 | 74 | 81 | 88 | 95 | 105 | 120 | 135 | 155 | | | | | | | | |
| $\frac{7}{8}$ | | | 41 | 44 | 48 | 52 | 59 | 66 | 73 | 80 | 87 | 94 | 100 | 115 | 130 | 150 | 170 | | | | | | | | |
| 1 | | | | 51 | 55 | 59 | 66 | 73 | 80 | 87 | 94 | 100 | 110 | 125 | 140 | 160 | 180 | 200 | 220 | 270 | | | | | |
| $1\frac{1}{4}$ | | | | | 62 | 68 | 74 | 80 | 87 | 94 | 100 | 110 | 120 | 135 | 155 | 175 | 195 | 215 | 235 | 285 | 335 | 395 | | | |
| $1\frac{1}{2}$ | | | | | 70 | 76 | 82 | 88 | 94 | 100 | 110 | 120 | 130 | 150 | 170 | 190 | 210 | 230 | 250 | 300 | 350 | 415 | | | |
| $1\frac{3}{4}$ | | | | | | 92 | 98 | 105 | 110 | 120 | 130 | 145 | 165 | 185 | 205 | 225 | 245 | 270 | 320 | 375 | 435 | | | | |
| 2 | | | | | | 105 | 110 | 120 | 125 | 130 | 140 | 155 | 180 | 200 | 220 | 240 | 260 | 290 | 340 | 400 | 455 | | | | |
| $2\frac{1}{4}$ | | | | | | | | 130 | 135 | 145 | 150 | 170 | 190 | 210 | 235 | 260 | 280 | 305 | 360 | 420 | 480 | | | | |
| $2\frac{1}{2}$ | | | | | | | | 155 | 160 | 170 | 175 | 185 | 205 | 225 | 255 | 275 | 300 | 330 | 385 | 450 | 510 | | | | |
| $2\frac{3}{4}$ | | | | | | | | | | 205 | 210 | 215 | 225 | 245 | 270 | 295 | 325 | 360 | 425 | 500 | 560 | | | | |
| 3 | | | | | | | | | | 235 | 240 | 245 | 255 | 265 | 295 | 330 | 365 | 405 | 480 | 555 | 640 | 750 | | | |
| $3\frac{1}{2}$ | | | | | | | | | | 330 | 340 | 350 | 360 | 370 | 380 | 390 | 430 | 475 | 555 | 635 | 730 | 850 | | | |
| 4 | | | | | | | | | | | | 450 | .... | 460 | .... | 475 | .... | 560 | 640 | 730 | 840 | 970 | | | |
| $4\frac{1}{2}$ | | | | | | | | | | | | | | | | 640 | .... | 660 | 740 | 845 | 970 | 1105 | | | |
| 5 | | | | | | | | | | | | | | | | | | 820 | 860 | 975 | 1105 | 1260 | 1425 | | |
| 6 | | | | | | | | | | | | | | | | | | | 1175 | 1250 | 1350 | 1600 | 1805 | 2010 | |

In ordering please state number and length, and also advise us whether round or flat heads are desired.

CONSTRUCTION MATERIAL.



MOULDING AND CAPPING.

Price per 1000 feet.

| Trade Word. | Size of Groove. | Unfinished Soft Wood. | | Painted Soft Wood. | | Unfinished Hard Wood. | | Painted Hard Wood. | | Unfinished Oak. | | Finished Oak. | |
|--|---------------------|-----------------------|---------|--------------------|---------|-----------------------|---------|--------------------|---------|-----------------|---------|---------------|---------|
| | | 2 Wire. | 3 Wire. | 2 Wire. | 3 Wire. | 2 Wire. | 3 Wire. | 2 Wire. | 3 Wire. | 2 Wire. | 3 Wire. | 2 Wire. | 3 Wire. |
| Stag | $\frac{1}{4}$ inch. | \$ 9.00 | \$15.00 | \$12.00 | \$19.50 | \$12.00 | \$18.00 | \$15.00 | \$22.50 | \$16.50 | \$27.00 | \$22.50 | \$36.00 |
| Stamp | $\frac{3}{8}$ " | 10.50 | 16.50 | 13.50 | 21.00 | 12.75 | 18.75 | 15.75 | 23.25 | 17.25 | 27.75 | 23.25 | 37.50 |
| Stand | $\frac{3}{8}$ " | 15.00 | 22.50 | 21.00 | 30.00 | 16.50 | 24.00 | 22.50 | 31.50 | 33.00 | 51.00 | 46.50 | 67.50 |
| Starve | $\frac{1}{2}$ " | 16.50 | 24.00 | 22.50 | 31.50 | 18.75 | 25.50 | 24.75 | 33.00 | 37.50 | 55.50 | 52.50 | 75.00 |
| Steam | $\frac{5}{8}$ " | 22.50 | 34.50 | 30.00 | 43.50 | 27.00 | 39.00 | 34.50 | 48.00 | 46.50 | 70.50 | 63.00 | 93.00 |
| Trade Word. Stud. Stuff. Stupid. Submit. Suffer. Sugar. Supper. Sugaring. Claw. Click. Clicked. Clerk. | | | | | | | | | | | | | |

By the use of two trade words any style or size of moulding may be designated.

WOOD CLEATS, HARDWOOD, FINELY FINISHED.



Unless otherwise specified, we will ship the two-wire cleats on all orders. If three-wire cleat is desired, say "three-wire" after trade words for two-wire cleat of size wanted. Three wire cleats cost one and one-third times the cost of two-wire with corresponding size of slot.

For Nos. 00 to 2 Insulated Wire.

| Trade Word. | Price. |
|---|------------------|
| Cemetery. Dimensions $6 \times \frac{1}{2} \times \frac{1}{2}$ in., $\frac{5}{8}$ -in. slot. | per 1000, \$6.50 |

For Nos. 3 and 5 Insulated Wire.

| Trade Word. | Price. |
|---|------------------|
| Cenotaph. Dimensions $6 \times \frac{1}{2} \times \frac{1}{2}$ in., $\frac{1}{2}$ -in. slot. | per 1000, \$6.50 |

For Nos. 6 to 7 Insulated Wire.

| Trade Word. | Price. |
|---|------------------|
| Censor. Dimensions $5 \times \frac{3}{8} \times \frac{5}{8}$ in., $\frac{3}{8}$ -in. slot. | per 1000, \$4.50 |

For Nos. 8 to 10 Insulated Wire.

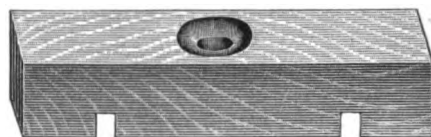
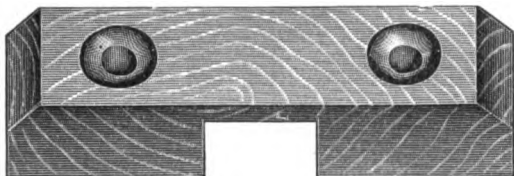
| Trade Word. | Price. |
|--|------------------|
| Censorial. Dimensions $4 \times \frac{1}{2} \times \frac{1}{2}$ in., $\frac{5}{8}$ -in. slot. | per 1000, \$3.50 |

For Nos. 11 to 14 Insulated Wire.

| Trade Word. | Price. |
|---|------------------|
| Censorious. Dimensions $3 \frac{1}{2} \times \frac{1}{2} \times \frac{1}{2}$ in., $\frac{1}{4}$ -in. slot. | per 1000, \$3.50 |

CONSTRUCTION MATERIAL.

WOOD CLEATS.



BUNCH CLEATS.

Any size up to $\frac{3}{4}$ inch depth of slot.

Trade Word.

Susan. Per 1,000.....\$4.50

Price.

Trade Word.

Swamp. Per 1,000.....\$3.00

Price.

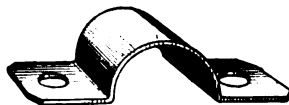
BELL WIRE CLEATS.

Full size.

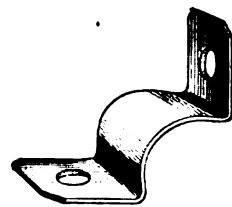
BRASS WIRING CLEATS.



Nos. 300 and 301.



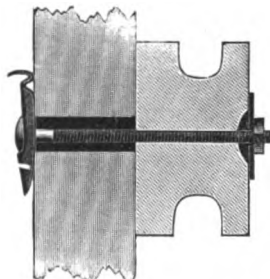
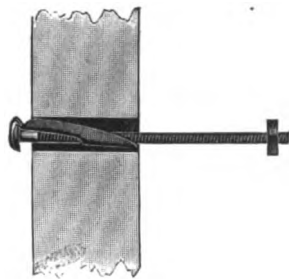
No. 302.



No. 303.

Trade Word.

| | | | Price. |
|---------|-----------------------------|------------|--------|
| Swan. | No. 300, small..... | per 1,000, | \$7.00 |
| Swift. | " 301, for No. 16 wire..... | " | 8.00 |
| Sybil. | " 302, " 6 "..... | " | 9.00 |
| Sylvia. | " 303, " 6 "..... | " | 9.00 |



IMPROVED ALL STEEL TOGGLE BOLTS.

For suspending fixture or fastening mouldings, telephones, pipe fixtures, porcelain rosettes or any fixture where screws or nails fail to hold.

Trade Word.

| | | | Price. |
|---------|--|----------|--------|
| Dawned. | Toggle bolt, 4 in. long, $\frac{3}{8}$ in. diam..... | per 100, | \$2.25 |
| Spoon. | " " 6 "..... | " | 3.00 |

STEEL BLIND OUTLET PLATES.

For the attachment of electrical fixtures without gas. Made of steel and held on tiling with two steel toggle bolts.

Trade Word.

Spring. Plate and iron pipe without toggle bolts, per 100, \$9.00

Price.



CONSTRUCTION MATERIAL.

HARD VULCANIZED FIBRE.

Red or black.

This material can be furnished in sheets of about 40x66 inches, and is cut to order.

Prices are for Red Fibre.

| Trade Word. | Thickness of Sheet. | Weight of Full Sheet. | Price per Pound, Full Sheet. | Trade Word. | Thickness of Sheet. | Weight of Full Sheet. | Price per Pound, Full Sheet. |
|-----------------|---------------------|-----------------------|------------------------------|-----------------|---------------------|-----------------------|------------------------------|
| Chime..... | 1 1/4 inch | 180 lbs. | \$0.65 | Chocolate..... | 1/8 " | 45 " | \$0.50 |
| Chip..... | 1 " | 144 " | .65 | Choice..... | 1/4 " | 36 " | .50 |
| Chipped..... | 3/4 " | 128 " | .60 | Choir..... | 1/4 " | 27 " | .50 |
| Chipping..... | 3/4 " | 108 " | .60 | Choking..... | 1/4 " | 18 " | .50 |
| Chirp..... | 3/4 " | 90 " | .60 | Cholera..... | 1/4 " | 9 " | .50 |
| Chiseled..... | 3/4 " | 72 " | .50 | Choleric..... | 1/4 " | 4 1/2 " | .60 |
| Chivalrous..... | 3/4 " | 63 " | .50 | Chimerical..... | 1/4 " | 2 1/4 " | .60 |
| Chivalry..... | 3/4 " | 54 " | .50 | | | | |

In ordering, please add the word "Red" or "Black" after the Trade Word to indicate which is desired.

For price of Black Fibre add 5 cents per pound to above prices.

HARD FIBRE RODS.

Red.

| Trade Word. | Diameter. | Price. | Trade Word. | Diameter. | Price. |
|-------------------|-------------------------|--------|-----------------|-------------------------|--------|
| Childishly..... | 1/4 inch..... per foot, | \$0.10 | Chilled..... | 1/4 inch..... per foot, | \$0.35 |
| Childishness..... | 3/4 " | .12 | Chilling..... | 3/4 " | .50 |
| Childless..... | 1 " | .15 | Chillia..... | 1/2 " | .60 |
| Childlike..... | 1 1/4 " | .18 | Chillingly..... | 1 1/4 " | .75 |
| Childly..... | 1 1/2 " | .22 | Chillness..... | 1 1/2 " | 1.00 |
| Children..... | 1 3/4 " | .26 | Chilly..... | 1 3/4 " | 1.25 |
| Children..... | 2 " | .30 | | | |

In ordering, please add the word "Red" or "Black" after the Trade Word to indicate which is desired.
Black Rods not made over 1/2 inches diameter. For price of Black Fibre Rods add 10 per cent. to above prices.

HARD ROLLED FIBRE TUBING.

| Inside Diam. | Wall 1/4 Thick. | Price. | Inside Diam. | Wall 1/4 Thick. | Price. |
|--------------|-----------------|--------|--------------|-----------------|--------|
| 1/4..... | per ft. | \$0.07 | 2..... | per ft. | \$0.36 |
| 1/2..... | " | .08 | 2 1/4..... | " | .38 |
| 3/4..... | " | .09 | 2 1/2..... | " | .40 |
| 1..... | " | .10 | 2 3/4..... | " | .42 |
| 1 1/4..... | " | .11 | 3..... | " | .44 |
| 1 1/2..... | " | .12 | 3 1/4..... | " | .46 |
| 1 3/4..... | " | .13 | 3 1/2..... | " | .48 |
| 2..... | " | .14 | 3 3/4..... | " | .50 |
| 2 1/4..... | " | .15 | 4..... | " | .52 |
| 2 1/2..... | " | .16 | 4 1/4..... | " | .56 |
| 2 3/4..... | " | .17 | 4 1/2..... | " | .60 |
| 3..... | " | .18 | 4 3/4..... | " | .64 |
| 3 1/4..... | " | .19 | 5..... | " | .68 |
| 3 1/2..... | " | .20 | 5 1/4..... | " | .72 |
| 3 3/4..... | " | .22 | 5 1/2..... | " | .76 |
| 4..... | " | .24 | 5 3/4..... | " | .80 |
| 4 1/4..... | " | .26 | 6..... | " | .84 |
| 4 1/2..... | " | .28 | | | .88 |
| 4 3/4..... | " | .30 | | | .92 |
| 5..... | " | .32 | | | .96 |
| 5 1/4..... | " | .34 | | | 1.00 |

Wall under 1/4 same price as 1/4. All other sizes at proportionate prices. Black 10 per cent. more. We can furnish
Tubing up to 6 1/4 inches outside diameter, and thickness of wall from 1 inch (on larger sizes) down to 3/16.

HARD SHEET RUBBER.

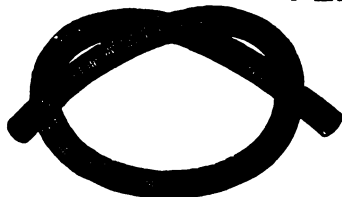
Size of sheets, 20x48 inches. The following sizes kept in stock:
Approximate Weight of Full Sheets.

| Trade Word. | Thickness. | 1 1/2 pounds. | Special Prices. |
|-------------------|------------|---------------|-----------------|
| Precession..... | 1/4 inch. | 2 1/4 " | |
| Precinct..... | 1/8 " | 3 1/4 " | |
| Precious..... | 3/8 " | 4 1/4 " | |
| Precipice..... | 1/2 " | 5 1/4 " | |
| Precipitance..... | 3/4 " | 6 " | |
| Precipitate..... | 1 " | 7 1/4 " | |
| Precipitous..... | 1 1/4 " | 10 1/4 " | |
| Precise..... | 1 1/2 " | 13 1/4 " | |
| Preciseness..... | 1 3/4 " | 16 1/4 " | |
| Precision..... | 1 7/8 " | 18 1/4 " | |
| Preclude..... | 2 " | 22 " | |
| Preclosure..... | 2 1/4 " | 24 " | |
| Precocious..... | 2 1/2 " | 27 " | |
| Precocity..... | 2 3/4 " | 32 " | |
| Preconceit..... | 3 " | 35 " | |
| Preconceive..... | 3 1/4 " | 40 " | |
| Precursive..... | 3 1/2 " | 50 " | |
| Predecessor..... | 1 1/4 " | | |

For sheets cut to size an extra charge will be made. Price will depend upon size and thickness.

CONSTRUCTION MATERIAL.

FLEXIBLE HARD RUBBER TUBING.



We invite attention to this new insulating material. Our claims for its superiority are as follows:

It can be bent without breaking or cracking. It is a perfect insulator. It is just the thing for going around corners and beams.

We furnish it in 6-foot lengths, $\frac{1}{4}$ inch to 1 inch internal diameter, with walls not less than $\frac{1}{8}$ inch. Other sizes are made in 30 inch lengths.

| Trade Word. | Inside Diameter. | Price per Pound. | Trade Word. | Inside Diameter. | Price per Pound. |
|----------------|---------------------|------------------|-------------------|---------------------|------------------|
| Cricketer..... | $\frac{1}{4}$ inch. | \$1.70 | Crimeful | $\frac{3}{4}$ inch. | \$1.70 |
| Cricketer..... | $\frac{1}{2}$ " | 1.70 | Criminal..... | $\frac{1}{2}$ " | 1.70 |
| Crier | $\frac{3}{4}$ " | 1.70 | Criminate..... | $\frac{1}{2}$ " | 1.70 |
| Crime..... | $\frac{1}{2}$ " | 1.70 | Criminating | 1 " | 1.70 |

BLACK OKONITE TUBING.

Endorsed by all Insurance Underwriters.

A soft, reliable tubing in any size made from our regular Okonite Compound, which will not harden or deteriorate when exposed to the weather, and has all the good properties of hard rubber, with the additional advantage of its flexibility.

This tubing meets the requirements in which the ordinary soft rubber tubing is useless, as it withstands varying changes of temperature and does not deteriorate or crack.

| Trade Word. | Inside Measurement. | Approximate No. of Feet per Pound. | Price per Pound. | Trade Word. | Inside Measurement. | Approximate No. of Feet per Pound. | Price per Pound. |
|-----------------|---------------------|------------------------------------|------------------|----------------|---------------------|------------------------------------|------------------|
| Depress | $\frac{1}{4}$ inch. | 35 Feet. | \$1.50 | Depth | $\frac{1}{4}$ inch. | 10 feet. | \$1.50 |
| Depression..... | $\frac{1}{4}$ " | 17 " | 1.40 | Depute..... | $\frac{1}{2}$ " | 8 " | 1.50 |
| Deprive..... | $\frac{1}{2}$ " | 14 " | 1.50 | Deputing | $\frac{3}{4}$ " | 4 $\frac{1}{2}$ " | 1.50 |
| Depriving..... | $\frac{3}{4}$ " | 11 $\frac{1}{2}$ " | 1.50 | Deputy..... | $\frac{1}{2}$ " | 4 " | 1.50 |
| | | | | Derelict..... | 1 " | 3 " | 1.50 |

HARD RUBBER TUBING.

The standard sizes for electric light construction, all of which we carry in large quantities. Unless otherwise specified, when only one dimension is given in ordering tube, we will understand that it refers to the inside measurement.

| Trade Word. | Outside Diameter. | Inside Diameter. | |
|-------------------|---------------------|---------------------|-------------------|
| Cheaply..... | $\frac{1}{4}$ inch. | $\frac{1}{4}$ inch. | } Special Prices. |
| Cheerful..... | $\frac{1}{2}$ " | $\frac{1}{2}$ " | |
| Checker..... | $\frac{3}{4}$ " | $\frac{3}{4}$ " | |
| Cheerfulness..... | $\frac{1}{2}$ " | $\frac{1}{2}$ " | |
| Cheerily..... | $\frac{3}{4}$ " | $\frac{3}{4}$ " | |

HARD RUBBER RODS.

| Approximate Weight per 100 feet. | | In lengths of 30 inches. | | Approximate Weight per 100 feet. | |
|----------------------------------|--------------------|--------------------------|-------------------------|----------------------------------|-------------------------|
| Diameter. | | Diameter. | | Diameter. | |
| $\frac{1}{4}$ inch. | $\frac{1}{4}$ lb. | $\frac{1}{4}$ inch. | 29 $\frac{1}{4}$ lb. | $\frac{1}{4}$ inch. | 29 $\frac{1}{4}$ lb. |
| $\frac{3}{8}$ " | 1 $\frac{1}{8}$ " | $\frac{1}{2}$ " | 36 $\frac{1}{2}$ " | $\frac{1}{2}$ " | 42 " |
| $\frac{1}{2}$ " | 1 $\frac{3}{4}$ " | $\frac{3}{4}$ " | 42 " | $\frac{3}{4}$ " | 53 $\frac{1}{4}$ " |
| $\frac{3}{4}$ " | 2 $\frac{1}{4}$ " | 1 $\frac{1}{4}$ " | 53 $\frac{1}{4}$ " | 1 $\frac{1}{4}$ " | 65 $\frac{1}{2}$ " |
| 1 " | 4 " | 1 $\frac{3}{4}$ " | 70 $\frac{1}{2}$ " | 1 $\frac{3}{4}$ " | 70 $\frac{1}{2}$ " |
| 1 $\frac{1}{4}$ " | 6 $\frac{1}{4}$ " | 2 " | 92 $\frac{1}{2}$ " | 2 " | 114 $\frac{1}{2}$ " |
| 1 $\frac{3}{4}$ " | 8 " | 2 $\frac{1}{4}$ " | 126 " | 2 $\frac{1}{4}$ " | 126 " |
| 2 " | 10 $\frac{1}{4}$ " | 2 $\frac{3}{4}$ " | 1 rod — 4 lb. | 2 $\frac{3}{4}$ " | 1 " — 5 $\frac{1}{4}$ " |
| 2 $\frac{1}{4}$ " | 12 $\frac{3}{4}$ " | 3 " | 1 " — 6 $\frac{1}{4}$ " | 3 " | 1 " — 6 $\frac{1}{4}$ " |
| 2 $\frac{3}{4}$ " | 16 " | | | | |
| 3 " | 19 $\frac{1}{4}$ " | | | | |
| 3 $\frac{1}{4}$ " | 22 $\frac{1}{4}$ " | | | | |
| 3 $\frac{3}{4}$ " | 27 $\frac{1}{4}$ " | | | | |

CONSTRUCTION MATERIAL.

UNCUT SHEET MICA.

India.

| Trade Word. | Grade No. | A1. | Will cut assorted sizes | 4 to 8 | inches wide, | 8 to 10 inches long. | per lb., | Price. |
|-------------|-----------|-----|-------------------------|---------|--------------|----------------------|----------|--------|
| Fall. | | | | | | | | \$2.75 |
| False. | " | 1. | " | 3 to 6 | " | 6 to 9 | " | 1.75 |
| Fame. | " | 2. | " | 2 to 4 | " | 5 to 8 | " | 1.00 |
| Farm. | " | 3. | " | 2 to 3½ | " | 4 to 6 | " | .50 |
| Fast. | " | 4. | " | 1 to 3½ | " | 2½ to 4 | " | .30 |

UNCUT SHEET MICA.

Amber.

| Trade Word. | Grade No. | A1. | Will cut assorted sizes | 4 to 8 | inches wide, | 8 to 10 inches long. | per lb., | Price. |
|-------------|-----------|-----|-------------------------|---------|--------------|----------------------|----------|--------|
| Fault. | | | | | | | | \$2.75 |
| Favor. | " | 1. | " | 3 to 6 | " | 6 to 9 | " | 1.75 |
| Feast. | " | 2. | " | 2 to 4 | " | 5 to 8 | " | 1.00 |
| Fervor. | " | 3. | " | 2 to 3½ | " | 4 to 6 | " | .50 |
| Fight. | " | 4. | " | 1 to 3½ | " | 2½ to 4 | " | .30 |

STAMPED SOLID SHEET MICA.

Commutator Segments.

| Trade Word. | | India or Amber. Per lb. | Built up and Gauged. Per lb. |
|-------------|--|----------------------------|------------------------------------|
| Seabound. | W. H. No. 49 | \$1.25 | \$2.00 |
| Seacoast. | " " 3 | .75 | 1.50 |
| Seagull. | " " 1754 | 1.50 | 2.00 |
| Seashore. | " " 12 | .75 | 1.50 |
| Seaside. | " " 38 | 2.50 | 2.75 |
| Seam. | " " 12A | 1.75 | 2.25 |
| Shad. | W. P. 30 | 1.25 | 1.75 |
| Shadow. | " 50 | 1.25 | 1.75 |
| Shop. | T. H. type F. 20 | 1.50 | 2.00 |
| Sigh. | " " 30 | 1.50 | 2.00 |
| Sin. | Ed. No. 8 or No. 12 | .75 | 1.50 |
| Sink. | Steel motor type C | 1.25 | 1.75 |
| Sipping. | " " D | .75 | 1.50 |
| Skate. | Sprague No. 6 | .65 | 1.50 |
| Skin. | " street car No. 6 | .65 | 1.50 |
| Skull. | S. R. G. | 1.50 | 2.00 |
| Slab. | G. E. 800 special | 1.25 | 2.00 |
| Slag. | " 1200 | 1.75 | 2.25 |
| Slam. | " 800 drum | .75 | 1.50 |
| Slay. | Walker 25 and 30 H. P. | .75 | 1.50 |
| Sleep. | " 50 H. P. | 1.75 | 2.25 |
| Slide. | T. H. W. P. 30 and 50 B. and S. type | 1.50 | 2.00 |
| Slip. | G. E. 800 ring form 6 or G. E. 800 drum form 6 | .75 | 1.50 |
| Snuff. | W. H. No. 1654 | 1.75 | 2.25 |

Our built up segments are gauged to thickness by micrometer calipers to the 1000th of an inch, then pressed and baked.

CONSTRUCTION MATERIAL.

CUT ELECTRICAL MICA.

India or Amber.

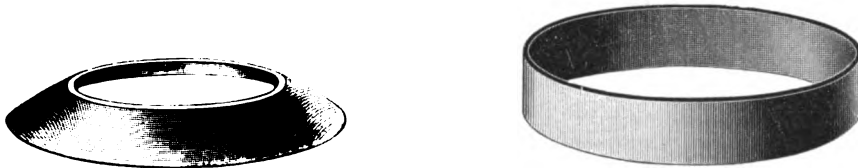
| Size Inches. | Price Per Lb. | Size Inches. | Price Per Lb. | Size Inches. | Price Per Lb. | Size Inches. | Price Per Lb. | Size Inches. | Price Per Lb. |
|-----------------|------------------|-----------------|------------------|-----------------|------------------|-----------------|------------------|-----------------|------------------|
| 1 x 4 | \$1 15 | 1½ x 8 | \$5 00 | 2½ x 3½ | \$ 1 75 | 3½ x 3½ | \$ 4 00 | 5 x 10 | \$11 00 |
| 1 x 4½ | 1 40 | 1½ x 8½ | 5 75 | 2½ x 3¾ | 1 95 | 3½ x 3¾ | 4 50 | 5 x 11 | 12 00 |
| 1 x 5 | 1 75 | 1½ x 9 | 6 25 | 2½ x 4 | 2 00 | 3½ x 4 | 5 25 | 5 x 12 | 13 50 |
| 1 x 5½ | 2 15 | 1½ x 9½ | 7 00 | 2½ x 4½ | 2 25 | 3½ x 4½ | 5 50 | 5½ x 5½ | 9 25 |
| 1 x 6 | 2 65 | 1½ x 10 | 7 50 | 2½ x 4¾ | 2 75 | 3½ x 4¾ | 6 00 | 5½ x 6 | 9 75 |
| 1 x 6½ | 3 25 | 1½ x 11 | 8 25 | 2½ x 4¾ | 3 25 | 3½ x 4¾ | 6 50 | 5½ x 7 | 10 25 |
| 1 x 7 | 4 25 | 1½ x 12 | 9 25 | 2½ x 5 | 3 75 | 3½ x 5 | 7 25 | 5½ x 8 | 10 50 |
| 1 x 7½ | 4 75 | 2 x 2 | 85 | 2½ x 5½ | 3 85 | 3½ x 5½ | 7 50 | 5½ x 9 | 10 75 |
| 1 x 8 | 5 00 | 2 x 2½ | 85 | 2½ x 5¾ | 4 00 | 3½ x 5¾ | 7 75 | 5½ x 10 | 11 50 |
| 1 x 8½ | 5 50 | 2 x 2½ | 90 | 2½ x 6 | 4 50 | 3½ x 6 | 8 50 | 5½ x 11 | 12 00 |
| 1 x 9 | 6 00 | 2 x 2¾ | 95 | 2½ x 6½ | 4 75 | 3½ x 7 | 8 75 | 5½ x 12 | 13 50 |
| 1 x 10 | 7 25 | 2 x 3 | 1 00 | 2½ x 7 | 5 25 | 3½ x 8 | 9 00 | 6 x 6 | 10 00 |
| 1½ x 4 | 1 15 | 2 x 3½ | 1 05 | 2½ x 7½ | 5 50 | 3½ x 9 | 9 50 | 6 x 6½ | 10 25 |
| 1½ x 4½ | 1 40 | 2 x 3¾ | 1 15 | 2½ x 8 | 5 75 | 3½ x 10 | 10 50 | 6 x 7 | 10 50 |
| 1½ x 5 | 1 75 | 2 x 3¾ | 1 25 | 2½ x 8½ | 6 75 | 3½ x 11 | 12 00 | 6 x 8 | 10 75 |
| 1½ x 5½ | 2 15 | 2 x 4 | 1 45 | 2½ x 9 | 7 25 | 3½ x 12 | 12 50 | 6 x 9 | 11 00 |
| 1½ x 6 | 2 65 | 2 x 4¼ | 1 50 | 2½ x 9½ | 7 75 | 3½ x 12½ | 4 50 | 6 x 10 | 11 50 |
| 1½ x 6½ | 3 25 | 2 x 4½ | 1 65 | 2½ x 10 | 8 25 | 3½ x 3¾ | 5 00 | 6 x 11 | 12 00 |
| 1½ x 7 | 4 25 | 2 x 4¾ | 1 75 | 2½ x 11 | 9 00 | 3½ x 4 | 6 00 | 6 x 12 | 14 00 |
| 1½ x 7½ | 4 75 | 2 x 5 | 2 00 | 2½ x 12 | 10 25 | 3½ x 4½ | 6 25 | 7 x 7 | 10 75 |
| 1½ x 8 | 5 00 | 2 x 5½ | 2 65 | 2½ x 2¾ | 1 50 | 3½ x 4½ | 6 50 | 7 x 7½ | 10 75 |
| 1½ x 8½ | 5 50 | 2 x 6 | 3 25 | 2½ x 3 | 2 00 | 3½ x 4¾ | 7 00 | 7 x 8 | 11 00 |
| 1½ x 9 | 6 00 | 2 x 6½ | 3 75 | 2½ x 3½ | 2 25 | 3½ x 5 | 7 50 | 7 x 9 | 11 25 |
| 1½ x 10 | 7 25 | 2 x 7 | 4 75 | 2½ x 3¾ | 2 50 | 3½ x 5½ | 8 25 | 7 x 10 | 12 00 |
| 1½ x 2 | 85 | 2 x 7½ | 5 00 | 2½ x 3¾ | 2 75 | 3½ x 6 | 8 75 | 7 x 11 | 12 50 |
| 1½ x 2½ | 85 | 2 x 8 | 5 25 | 2½ x 4 | 3 25 | 3½ x 6½ | 8 75 | 8 x 8 | 12 00 |
| 1½ x 2½ | 85 | 2 x 8½ | 6 00 | 2½ x 4½ | 3 50 | 3½ x 7 | 9 00 | 8 x 9 | 12 50 |
| 1½ x 2¾ | 85 | 2 x 9 | 6 50 | 2½ x 4¾ | 4 00 | 3½ x 8 | 9 25 | 8 x 10 | 13 00 |
| 1½ x 3 | 85 | 2 x 9½ | 7 25 | 2½ x 4¾ | 4 50 | 3½ x 9 | 9 50 | | |
| 1½ x 3½ | 90 | 2 x 10 | 7 75 | 2½ x 5 | 5 25 | 3½ x 10 | 10 75 | | |
| 1½ x 3½ | 95 | 2 x 11 | 8 50 | 2½ x 5½ | 5 50 | 3½ x 11 | 12 00 | | |
| 1½ x 3¾ | 1 00 | 2 x 12 | 9 50 | 2½ x 5¾ | 5 75 | 3½ x 12 | 13 00 | | |
| 1½ x 4 | 1 15 | 2½ x 2½ | 85 | 2½ x 6 | 6 25 | 4 x 4 | 7 00 | | |
| 1½ x 4½ | 1 25 | 2½ x 2½ | 90 | 2½ x 6½ | 6 50 | 4 x 4½ | 7 25 | | |
| 1½ x 4½ | 1 40 | 2½ x 2¾ | 95 | 2½ x 7 | 7 00 | 4 x 5 | 7 75 | | |
| 1½ x 5 | 1 75 | 2½ x 3 | 1 25 | 2½ x 7½ | 7 50 | 4 x 5½ | 8 50 | | |
| 1½ x 5½ | 2 15 | 2½ x 3½ | 1 40 | 2½ x 8 | 8 00 | 4 x 6 | 9 00 | | |
| 1½ x 6 | 2 65 | 2½ x 3½ | 1 55 | 2½ x 8½ | 9 00 | 4 x 6½ | 9 25 | | |
| 1½ x 6½ | 3 25 | 2½ x 3¾ | 1 70 | 2½ x 9 | 9 25 | 4 x 7 | 9 50 | | |
| 1½ x 7 | 4 25 | 2½ x 4 | 1 85 | 2½ x 9½ | 9 75 | 4 x 8 | 9 75 | | |
| 1½ x 7½ | 4 75 | 2½ x 4¼ | 2 00 | 2½ x 10 | 10 25 | 4 x 9 | 10 00 | | |
| 1½ x 8 | 5 00 | 2½ x 4½ | 2 25 | 2½ x 11 | 11 25 | 4 x 10 | 11 00 | | |
| 1½ x 8½ | 5 50 | 2½ x 4¾ | 2 50 | 2½ x 12 | 11 75 | 4 x 11 | 12 00 | | |
| 1½ x 9 | 6 00 | 2½ x 5 | 3 00 | 3 x 3 | 2 75 | 4 x 12 | 13 00 | | |
| 1½ x 9½ | 6 75 | 2½ x 5½ | 3 10 | 3 x 3½ | 3 00 | 4½ x 4½ | 7 50 | | |
| 1½ x 10 | 7 25 | 2½ x 5¾ | 3 25 | 3 x 3½ | 3 50 | 4½ x 5 | 8 25 | | |
| 1½ x 11 | 8 00 | 2½ x 6 | 3 65 | 3 x 3¾ | 4 00 | 4½ x 5½ | 8 75 | | |
| 1½ x 12 | 9 00 | 2½ x 6½ | 3 90 | 3 x 4 | 5 00 | 4½ x 6 | 9 25 | | |
| 1½ x 3 | 95 | 2½ x 6½ | 4 15 | 3 x 4¼ | 5 25 | 4½ x 6½ | 9 50 | | |
| 1½ x 3½ | 1 00 | 2½ x 7 | 5 00 | 3 x 4½ | 6 00 | 4½ x 7 | 9 75 | | |
| 1½ x 3½ | 1 10 | 2½ x 7½ | 5 25 | 3 x 4¾ | 6 50 | 4½ x 8 | 10 00 | | |
| 1½ x 3¾ | 1 25 | 2½ x 8 | 5 75 | 3 x 5 | 7 00 | 4½ x 9 | 10 25 | | |
| 1½ x 4 | 1 35 | 2½ x 8½ | 6 50 | 3 x 5½ | 7 50 | 4½ x 10 | 11 25 | | |
| 1½ x 4½ | 1 40 | 2½ x 9 | 7 00 | 3 x 6 | 8 00 | 4½ x 11 | 12 00 | | |
| 1½ x 4½ | 1 50 | 2½ x 9½ | 7 75 | 3 x 6½ | 8 25 | 4½ x 12 | 13 00 | | |
| 1½ x 4¾ | 1 65 | 2½ x 10 | 8 25 | 3 x 7 | 8 50 | 5 x 5 | 8 50 | | |
| 1½ x 5 | 2 00 | 2½ x 11 | 8 75 | 3 x 8 | 8 75 | 5 x 5½ | 9 00 | | |
| 1½ x 5½ | 2 40 | 2½ x 12 | 9 75 | 3 x 9 | 9 00 | 5 x 6 | 9 50 | | |
| 1½ x 6 | 3 00 | 2½ x 2½ | 1 10 | 3 x 10 | 10 50 | 5 x 6½ | 9 75 | | |
| 1½ x 6½ | 3 50 | 2½ x 2¾ | 1 25 | 3 x 11 | 12 00 | 5 x 7 | 10 00 | | |
| 1½ x 7 | 4 50 | 2½ x 3 | 1 50 | 3 x 12 | 12 50 | 5 x 8 | 10 25 | | |
| 1½ x 7½ | 4 75 | 2½ x 3½ | 1 60 | 3½ x 3½ | 3 50 | 5 x 9 | 10 50 | | |

All Larger,
Special Prices.

CONSTRUCTION MATERIAL.

SOLID MICA RINGS.

For All Commutators.



| Trade Word. | | Price. | Trade Word. | | Price. |
|-------------|--------------------------------|--------------|-------------|--------------------------------|--------------|
| Faber. | W P. 30, inner and outer..... | each, \$0.50 | Flop. | Edison 8, taper and band..... | each, \$0.60 |
| Face. | W P. 50, " "..... | .50 | Fly. | Westinghouse 3, taper..... | .65 |
| Fact. | F 30, " "..... | .50 | Food. | " 3, band..... | .50 |
| Fade. | F 20, " "..... | .50 | Forge. | " 3, flat..... | .55 |
| Fag. | G E 800, drum taper..... | .60 | Fox. | " 12, taper..... | .65 |
| Faith. | G E 800, " band, wide..... | .60 | Foxall. | " 12, band..... | .50 |
| Find. | G E 800, " narrow..... | .50 | Foxglove. | " 12, flat..... | .55 |
| Fist. | G E 800, " flat..... | .40 | Foxhound. | " 12a, taper..... | .75 |
| Flag. | G E 800, " flanged..... | .60 | Foxy. | " 12a, band..... | .55 |
| Flap. | G E 1200, " "..... | .65 | Fog. | " 12a, flat..... | .60 |
| Flat. | G E 1200, taper..... | .75 | Fred. | Steel motor, type C, taper.... | .80 |
| Flax. | G E 1200, band wide..... | .90 | Fret. | " " " D, "..... | .80 |
| Flint. | G E 1200, " narrow..... | .75 | Frog. | " " " D, band, wide..... | .85 |
| Flirt. | Sprague 6, front and back..... | .60 | Fuse. | " " " D, " narrow..... | .65 |
| Float. | Edison 6, front and back..... | .60 | | | |

MICA WASHERS.

Inside Diameters.

| Outside Diameters. Inches. | $\frac{1}{8}$ in. | $\frac{1}{4}$ in. | $\frac{3}{8}$ in. | $\frac{1}{2}$ in. | $\frac{3}{4}$ in. | $\frac{1}{2}$ in. | $\frac{3}{4}$ in. | $\frac{1}{2}$ in. | 1 in. | $1\frac{1}{8}$ in. | $1\frac{1}{4}$ in. | $1\frac{1}{2}$ in. |
|----------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|--------|--------------------|--------------------|--------------------|
| $\frac{1}{8}$ | \$2.00 | \$2.00 | \$2.00 | .... | .... | .... | .... | .... | .... | .... | .... | .... |
| $\frac{1}{4}$ | 2.00 | 2.00 | 2.00 | .... | .... | .... | .... | .... | .... | .... | .... | .... |
| $\frac{3}{8}$ | 1.50 | 1.50 | 1.75 | \$2.00 | \$2.00 | .... | .... | .... | .... | .... | .... | .... |
| $\frac{1}{2}$ | 1.50 | 1.50 | 1.50 | 2.00 | 2.00 | \$2.00 | .... | .... | .... | .... | .... | .... |
| $\frac{3}{4}$ | 1.50 | 1.50 | 1.50 | 1.50 | 2.00 | 2.00 | \$2.00 | .... | .... | .... | .... | .... |
| 1 | 1.25 | 1.25 | 1.25 | 1.25 | 1.50 | 1.50 | 2.00 | \$2.00 | .... | .... | .... | .... |
| $1\frac{1}{8}$ | 1.25 | 1.25 | 1.25 | 1.25 | 1.35 | 1.35 | 1.50 | 1.75 | .... | .... | .... | .... |
| $1\frac{1}{4}$ | 1.20 | 1.20 | 1.20 | 1.20 | 1.20 | 1.25 | 1.50 | 1.75 | \$1.75 | .... | .... | .... |
| $1\frac{3}{8}$ | 1.20 | 1.20 | 1.20 | 1.20 | 1.20 | 1.25 | 1.25 | 1.50 | 1.75 | .... | .... | .... |
| $1\frac{1}{2}$ | 1.00 | 1.00 | 1.00 | 1.00 | 1.20 | 1.20 | 1.25 | 1.25 | 1.50 | \$1.50 | .... | .... |
| $1\frac{3}{4}$ | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.20 | 1.20 | 1.30 | 1.50 | .... | .... |
| $1\frac{7}{8}$ | .80 | .80 | .80 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.25 | 1.25 | \$1.25 | .... |
| 2 | .80 | .80 | .80 | .80 | .80 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.25 | .... |
| $2\frac{1}{8}$ | .75 | .75 | .75 | .75 | .75 | .80 | .80 | 1.00 | 1.00 | 1.00 | 1.00 | \$1.25 |
| $2\frac{1}{4}$ | .60 | .60 | .60 | .70 | .70 | .80 | .80 | .80 | 1.00 | 1.00 | 1.00 | 1.00 |

| Outs. Diam. Inches. | Ins. Diam. Inches. | Price. | Outs. Diam. Inches. | Ins. Diam. Inches. | Price. | Outs. Diam. Inches. | Ins. Diam. Inches. | Price. |
|---------------------|--------------------|-------------|---------------------|--------------------|-------------|---------------------|--------------------|-------------|
| $1\frac{1}{8}$ | $\frac{3}{4}$ |\$1.00 | $1\frac{1}{4}$ | $\frac{3}{4}$ |\$1.20 | $1\frac{1}{2}$ | $\frac{1}{2}$ |\$1.00 |
| $1\frac{3}{8}$ | $\frac{3}{4}$ |1.00 | $1\frac{3}{4}$ | $\frac{3}{4}$ |1.00 | $1\frac{3}{8}$ | $\frac{3}{4}$ |1.50 |
| $1\frac{1}{2}$ | $\frac{3}{4}$ |1.20 | $1\frac{1}{2}$ | $\frac{1}{2}$ |1.20 | $1\frac{1}{2}$ | $\frac{1}{2}$ |1.50 |

The above prices are per pound, and are subject to special discounts.

Washers or rings furnished of any dimensions not mentioned above. Prices are for washers not built up. If required built up to any required thickness add 75 cents per pound to the above on outside diameters of one inch and under, and 50 cents on over one inch.

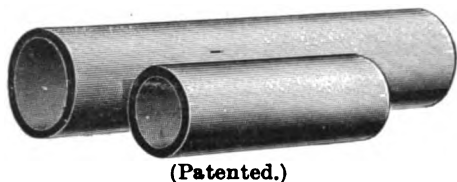
CONSTRUCTION MATERIAL.

MICANITE COMMUTATOR RINGS.

| | No. Per Set. | Price. |
|---|--------------|--------------|
| G. E. 800, ring type, form 3, taper | 2 | each, \$0.75 |
| " " " " " 3, band, wide | 1 | " .75 |
| " " " " " 3, band, narrow | 1 | " .75 |
| " " " " " 3, flat | 1 | " .75 |
| " " " " " 3, sleeve for shell | 1 | " .75 |
| " " " drum " 4, taper | 2 | " .60 |
| " " " " " 4, band, wide | 1 | " .60 |
| " " " " " 4, band, narrow | 1 | " .50 |
| " " " " " 4, flat, flanged | 1 | " .60 |
| " " " " " 4 sleeve for shell | 1 | " .40 |
| " " " " " 6, taper | 2 | " .60 |
| " " " " " 6, band, wide | 1 | " .60 |
| " " " " " 6, band, narrow | 1 | " .50 |
| " " " " " 6, flat, flanged | 1 | " .90 |
| " " " " " 6, sleeve for shell | 1 | " .40 |
| " " 1000, taper | 2 | " .75 |
| " " " band, wide | 1 | " .80 |
| " " " band, narrow | 1 | " .75 |
| " " " sleeve for shell | 1 | " .75 |
| " " 1200, form 2, taper | 2 | " .60 |
| " " " 2, band, wide | 1 | " .80 |
| " " " 2, band, narrow | 1 | " .75 |
| " " " 2, flat, flanged | 1 | " .90 |
| " " " 2, sleeve for shell | 1 | " .75 |
| W. P. 30, form 1, inner and outer | 4 | " .50 |
| " " " 1, sleeve for shell | 1 | " .75 |
| " " " 4, taper | 2 | " .75 |
| " " " 4, band, wide | 1 | " .65 |
| " " " 4, band, narrow | 1 | " .60 |
| " " " 4, sleeve for shell | 1 | " .75 |
| " " 50, " 1, inner and outer | 4 | " .50 |
| " " " 1, sleeve for shell | 1 | " .75 |
| " " " 4, taper | 2 | " .75 |
| " " " 4, band, wide | 1 | " .65 |
| " " " 4, band, narrow | 1 | " .60 |
| " " " 4, sleeve for shell | 1 | " .75 |
| F 30, inner and outer | 4 | " .50 |
| " " sleeve for shell | 1 | " .75 |
| " 20, inner and outer | 4 | " .50 |
| " " sleeve for shell | 1 | " .50 |
| Westinghouse, No. 3, taper | 2 | " .65 |
| " " 3, band | 2 | " .50 |
| " " 3, flat | 1 | " .55 |
| " " 3, sleeve for shell | 1 | " 1.00 |
| " " 12, taper ring | 2 | " .65 |
| " " 12, taper ring band | 2 | " .60 |
| " " 12, flat ring for end of segments | 1 | " .55 |
| " " 12, sleeve for shell | 1 | " 1.00 |
| " " 12 A, taper ring | 2 | " .65 |
| " " 12 A, taper band ring | 2 | " 1.00 |
| " " 12 A, flat ring for end of segments | 1 | " .60 |
| " " 12 A, sleeve for shell | 1 | " 1.00 |
| Short S R. G., taper rings | 2 | " 1.00 |
| " S. R. G., band rings | 1 | " 1.00 |
| " S. R. G., flat rings | 1 | " .60 |
| " S. R. G., sleeve for shell | 2 | " .75 |
| Steel Motor Co., C 60, taper ring, narrow | 1 | " 1.00 |
| " " " C 60, taper ring, wide | 1 | " 1.00 |
| " " " C 60, sleeve for shell | 1 | " 1.90 |
| " " " D 50, taper ring | 2 | " .85 |
| " " " D 50 taper band ring | 2 | " 1.00 |
| " " " D 50, sleeve for shell | 1 | " 1.25 |
| " " " No 20, taper ring | 2 | " .60 |
| " " " 20, taper band ring | 2 | " .75 |
| " " " 20, sleeve for shell | 1 | " .60 |

CONSTRUCTION MATERIAL.

MICANITE CYLINDERS.



(Patented.)

Cylinders for insulating armature bodies and shafts, commutator shells, field cores, etc., we make in all sizes.

State thickness, internal diameter and length when ordering.

MICANITE TUBES.

Micanite tubes of any size and length made to order. These tubes are made throughout entirely of sheet mica, and for insulating armature conductors, armature core bolts, interior conduits, etc., they are unequalled.

Tubes of the following inside diameters are carried in stock: $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$, 1 , $1\frac{1}{4}$, $1\frac{1}{2}$, 2 and $2\frac{1}{2}$ inch. We can make any thickness desired. Always state thickness, internal diameter and length when ordering.

MICANITE COMMUTATOR SEGMENTS.

Commutator segments cut to any pattern and thickness.

By our patented process we manufacture segments in one solid piece, which are better than when the tang is dovetailed. And we also save the waste of material and labor expended in making them by the ordinary methods.

These segments are kept in stock for quick delivery, but to prevent mistakes always send paper pattern with orders. No charge for dies.



| | No. Segments. | Price. |
|---------------------------------|---------------|-------------------|
| G. E. 800, form 4 or 6..... | 105 | per pound, \$2.20 |
| " 800, ring..... | 130 | " 2.20 |
| " 1000, | 93 | " 2.20 |
| " 1200, form 2..... | 105 | " 2.20 |
| " 2000, | 141 | " 2.20 |
| " 51, | 111 | " 2.20 |
| " 52, | 87 | " 2.20 |
| " 53, | 111 | " 2.20 |
| " 57, | 99 | " 2.20 |
| W. P. 50, form 1-4-6 or 7 | 64 | " 2.20 |
| " 30, " 1-4-6 or 7..... | 64 | " 2.20 |
| F. 30, " 4 or old style..... | 64 | " 2.20 |
| " 20, " " "..... | 64 | " 2.20 |
| S. R. G., | 64 | " 2.20 |
| Sprague, No. 6..... | 56 | " 2.20 |
| Edison No. 6 | 56 | " 2.20 |
| " No. 8..... | 56 | " 2.20 |
| Westinghouse No. 3..... | 95 | " 2.20 |
| " No. 12..... | 95 | " 2.20 |
| " No. 12A..... | 93 | " 2.20 |
| Short S. R. G..... | 144 | " 2.20 |
| Steel motor, D 50..... | 99 | " 2.20 |

M. I. C. COMPOUND.

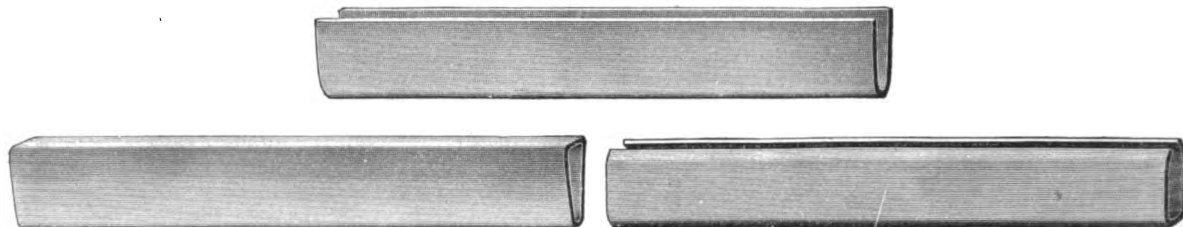
| | No. 1. Full Rubber Baking. | No. 2. $\frac{1}{2}$ Rubber Baking. | No. 3. Full Rubber Air Drying. | No. 4. $\frac{1}{2}$ Rubber Air Drying. |
|------------------------------|----------------------------------|---|--------------------------------------|---|
| | Per gallon | Per gallon | Per gallon | Per gallon |
| In barrels..... | \$1.30 | \$1.10 | \$0.90 | \$0.65 |
| " $\frac{1}{2}$ barrels..... | 1.40 | 1.20 | 0.95 | 0.70 |
| " 5 gallon cans..... | 1.50 | 1.30 | 1.00 | 0.75 |
| " 1 " "..... | 1.75 | 1.50 | 1.25 | 1.00 |

CONSTRUCTION MATERIAL.

MICANITE ARMATURE TROUGHS.

(Patented.)

For slotted armatures, etc.



The following micanite troughs are kept in stock:

| Trade Word. | | No. Per Set. | Price. |
|-------------|---------------------|------------------|-----------------|
| Night. | G. E. Co's. G. E. | 800 Gramme | per lb., \$2.75 |
| Gazement. | " " | 800 Drum | " 2.75 |
| Nitrogen. | " W. P. | 50 | " 2.00 |
| Noble. | " " | 30 | " 2.35 |
| Noon. | Westinghouse, No. 3 | 95 | " 2.40 |
| North. | " No. 12A | 93 | " 2.40 |

All other troughs, prices on application.

MICANITE INSULATING CLOTH.

For general purposes micanite cloth and micanite papers are most useful insulators. They are used principally in making and repairing armatures and field magnets, transformers and all kinds of electric apparatus. They have recently been greatly improved, and are NON-ABSORPTIVE and remain FLEXIBLE INDEFINITELY, and can be kept in stock without loss. They contain the greatest possible amount of mica for the thickness of material.

Made with 1, 2 or 3 layers of pure India sheet mica. Rolls 16 feet long, 32 inches wide. Sheets 32 inches by 32 inches. Average break down tests 439 volts per mil. Standard thickness, 8, 11 and 14 mils.

| Trade Word. | | Price. |
|-------------|---------------------------------|-----------------|
| Leamer. | Micanite insulating cloth | per lb., \$1.30 |

Extra Flexible.

Made with pure India sheet mica. Rolls 16 feet long, 32 inches wide. Sheets 32 inches by 32 inches. Average break down test 296 volts per mil. Standard thickness 8 and 11 mils.

| Trade Word. | | Price. |
|-------------|-------------------------------------|-----------------|
| Life. | Extra flexible micanite cloth | per lb., \$1.80 |

MICANITE INSULATING PAPER.

Made with 1, 2 or 3 layers of pure India sheet mica. Rolls 16 feet long, 32 inches wide. Sheets 32 inches by 32 inches. Average break down test 407 volts per mil. Standard thickness, 5, 8 and 11 mils.

| Trade Word. | | Price. |
|-------------|--|-----------------|
| Loan. | Micanite insulating paper, 1 layer of mica | per lb., \$1.30 |

Extra Flexible.

Made with pure India sheet mica. Rolls 16 feet long, 32 inches wide. Sheets 32 inches by 32 inches. Average break down test 325 volts per mil. Resistance at 30° cent. 503 million megohms per cubic inch. Standard thickness 8 and 11 mils.

| Trade Word. | | Price. |
|-------------|--|-----------------|
| Linder. | Extra flexible micanite insulating paper | per lb., \$1.80 |

CONSTRUCTION MATERIAL.

EMPIRE OILED CLOTHS.

Made from specially prepared muslin and treated with fine linseed oil. Furnished in sheets 36 x 72 inches. Average break down test, 506 volts per mil.

| | | |
|------------|--------|-----------------|
| Thickness, | No. 1. | Muslin, 7 mils. |
| | No. 2. | " 5 " |
| | No. 3. | Canvas, 15 " |

No. 3 empire insulating cloth is very strong mechanically, and is used where space permits.

| Trade Word. | No. | | Price. |
|---------------|-----|------------------------------|------------------|
| Pre-eminence. | 1. | Empire insulating cloth..... | per yard, \$0.33 |
| Pre-emption | 2. | " " " | " .35 |
| Prefatory. | 3. | " " " | " .35 |

EMPIRE OILED LINEN.

Made from the best Irish linen and treated with pure linseed oil. Furnished in pieces 72 inches long, 36 inches wide. Average break down test, 506 volts per mil. Thickness, 6 mils.

| Trade Word. | Price. |
|-------------------------------|------------------|
| Preferring. Empire linen..... | per yard, \$0.75 |

EMPIRE INSULATING PAPERS.

Empire rope paper.

Made from finest grade of rope paper and treated with pure linseed oil. Furnished in sheets 36 inches wide, 72 inches long. Average break down test, 936 volts per mil. Thickness $4\frac{1}{2}$ mils.

| Trade Word. | Price. |
|---------------------------------|------------------|
| Prefect. Empire rope paper..... | per yard, \$0.12 |

EMPIRE BOND PAPER.

Made from finest grade of bond paper and treated with pure linseed oil. Furnished in sheets 19 inches by 24 inches, and 22 inches by 34 inches. Average break down test, 936 volts per mil. Thickness 5 mils.

| Trade Word. | Price. |
|------------------------------------|--------------|
| Prefer. Sheets 19 x 24 inches..... | each, \$0.09 |
| Preferred. " 22 x 34 " | " .15 |

M. I. C. COMPOUND PAPERS.

Made from finest grade papers and treated with two baked coatings of M. I. C. compound.

| Trade Word. | Grade of Stock. | Size of Sheets. | Thickness. | Price. |
|-------------|---------------------|-----------------|------------------------|------------------|
| Leg. | Manilla rope paper. | 36 x 72. | $\frac{4}{1000}$ | per yard, \$0.12 |
| Level. | Bond paper | 19 x 24. | $\frac{5}{1000}$ | " .09 |
| Lobster. | " " | 22 x 34. | $\frac{5}{1000}$ | " .15 |

M. I. C. COMPOUND CLOTHS.

Made from finest grade muslin and canvas, treated with baked coatings of M. I. C. compound.

| Trade Word. | Grade of Stock. | Size of Sheets. | Thickness. | Price. |
|-------------|-----------------|-----------------|-------------------------|------------------|
| Lock. | No. 1 Muslin. | 36 x 72. | $\frac{7}{1000}$ | per yard, \$0.33 |
| Cadeted | No. 2 " | 36 x 72. | $\frac{5}{1000}$ | " .35 |
| Calash. | No. 3 Canvas. | 36 x 72. | $\frac{15}{1000}$ | " .35 |

CONSTRUCTION MATERIAL.

M. I. C. COMPOUND, LINEN.

Made from special quality Irish linen and treated with baked coatings M. I. C. Compound.

| Trade Word. | Grade of stock. | Size of Sheets. | Thickness. | Price. |
|-------------|-------------------------------------|-----------------|------------------|------------------|
| Camped. | Irish linen (special quality.)..... | 36" x 72" | $\frac{5}{1000}$ | per yard, \$0.75 |

M. I. C. COMPOUND, ASBESTOS PAPER.

When used in conjunction with our Empire cloth the two combined make a strong semi-fire-proof insulation of a very high resistance.

| Trade Word. | Grade of stock. | Size of sheets. | Thickness. | Price. |
|-------------|--------------------------|-----------------|------------------|------------------|
| Cave. | Pure asbestos paper..... | 36" x 72" | $\frac{9}{1000}$ | per yard, \$0.15 |

FLEXIBLE MICANITE PLATE, STYLE B.

Made in sheets 36 inches square and in any thickness from 10 mils up. This article is very convenient for insulating armature slots, armature, magnet and commutator cores, transformers, etc. It is the cheapest possible form of mica insulation. We call particular attention to its resistance at high temperature. Resistance at 30° cent, 320 million megohms per cubic inch, at 100° cent, 268 million megohms per cubic inch. Average break down test, 755 volts per mil.

| Trade Word. | Price. |
|--|-----------------|
| Predicate. Flexible micanite plate, style B..... | per lb., \$1.00 |

MICANITE PLATE NO. 1, STANDARD.

This grade is suitable for all general purposes. It softens when heated and is easily moulded to form. Suitable for commutator rings, armature slots, spools, transformer insulators, etc. Furnished in plate of any thickness and in sheets 18 x 36 inches. Average break down test, 1012 volts per mil of thickness.

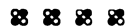
| Trade Word. | Price. |
|---|-----------------|
| Predicay. Micanite plate No. 1 standard. | per lb., \$1.80 |

MICANITE PLATE NO. 2 SPECIAL.

This grade is made specially for commutator segments. The cement will not ooze when heated. The mica is softened, so as to wear away equally with the copper. Special attention is paid to the thickness of the plate. Furnished in sheets 18 x 36 inches of varied thicknesses.

| Trade Word. | Price. |
|---|-----------------|
| Predispose. Micanite plate No. 2 special..... | per lb., \$1.80 |

TOOLS.



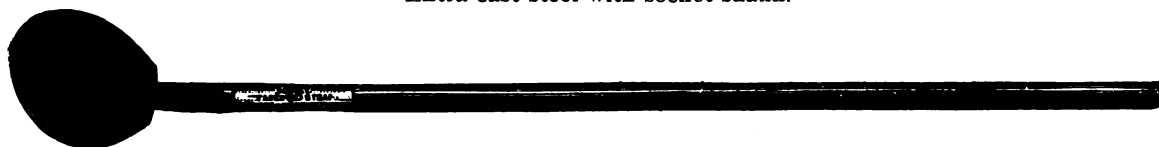
In this, as in our last catalogue, it has
been our aim in listing this class of goods
to show only such as are of a superior
quality and workmanship, and which will be
of practical use in the various departments
of electrical work.

The prices of tools have, in all cases, been
reduced where such a course was made pos-
sible by reason of less cost to us. . . .

TOOLS.

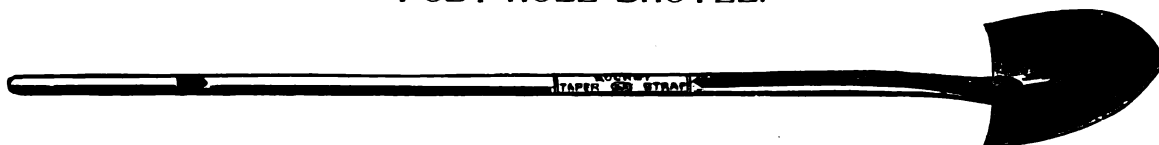
POST-HOLE SPOON.

Extra cast steel with socket shank.



| | | | | | |
|-------------|-----------------|------------------------------|-------------|-----------------|---------|
| Trade Word. | | | | | Price. |
| Conflict. | 8-foot handles. | Size of spoon, 10x8½ inches. | Extra heavy | per doz., | \$26.40 |

POST-HOLE SHOVEL.



Reinforced handles. Round points.

| | | | | | |
|-------------|-----------------|--------------------------|-----------------|---------|--------|
| Trade Word. | | | | | Price. |
| Confluent. | 8-foot handles. | Extra quality long strap | per doz., | \$27.60 | |

EUREKA POST-HOLE DIGGER.



| | | | | | |
|-------------|-------|--|--|-------|--------|
| Trade Word. | | | | | Price. |
| Conform | ..... |  |  | each, | \$2.50 |

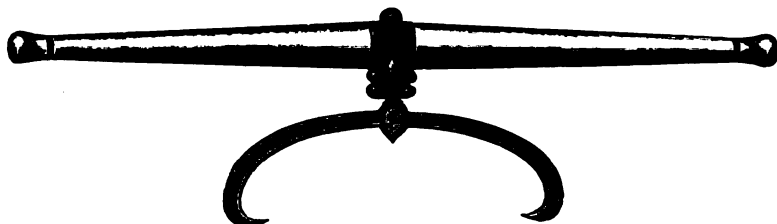
POST-HOLE AUGERS.



| | | | | | |
|---------------|--------------|-------|-------|--------|--------|
| Trade Word. | | | | | Price. |
| Conformable. | 12-inch hole | ..... | each, | \$4.75 | |
| Conformation. | 14 " " | ..... | " | 5.50 | |

TOOLS.

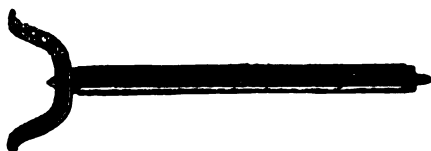
LIFTING AND CARRYING HOOKS.



Trade Word.
Confusedness. With swivel.....each, \$3 00

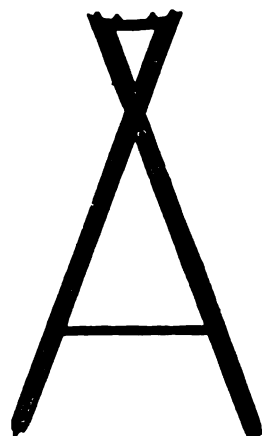
Price.

"MULE PATTERN" POLE SUPPORTS.



Trade Word.
Congelation. Height, 4½ feet.....each, \$4.50
Congener. " 6 " " 5.50
Congenite. " 7½ " " 6.50

Price.

"JENNY"
POLE SUPPORTS.

Trade Word.
Congeneric. Height, 6 feet..\$6.00
Congenial. " 7½ " .. 8.00

Price.

Each.

GUARDED PIKE.



Trade Word.
Confusing. Length, 12 feet.....each, \$2.20
Confusion. " 16 " " 2.50
Confutable. " 18 " " 3.00
Confutation. " 20 " " 3.50

Price.

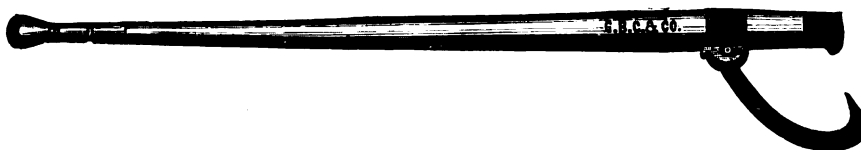
PLAIN PIKE.



Trade Word.
Confute. Length of pole, 12 feet.....each, \$1.60
Confuted. " 16 " " 1.80
Confuting. " 18 " " 2.10
Congeal. " 20 " " 3.00

Price.

CANT HOOK.

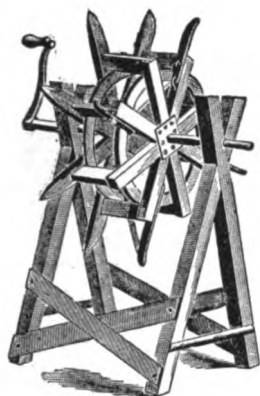


Trade Word.
Congealing. With handle.....each, \$2.00

Price.

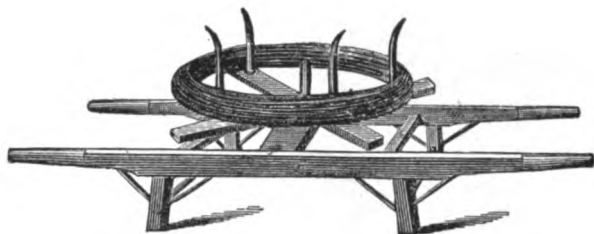
TOOLS.

TAKE-UP REEL.



Trade Word. Price.
Congest.....each, \$18.50

PAY-OUT REEL.



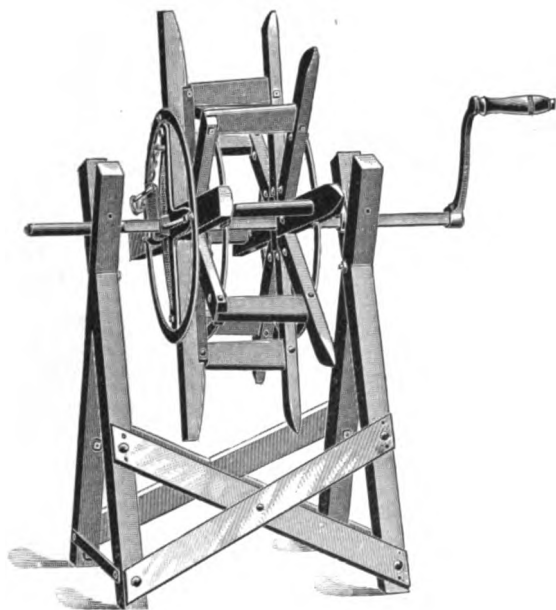
| Trade Word. | Price. |
|--|--------------|
| Congenital. Heavy fitted, as per cut.. | each \$18.00 |
| Congestion. Light fitted, as per cut, | |
| for telephone work... | " 13 00 |
| Conglomerate. Reel straps..... | " 3.00 |

COMMON PAY-OUT REEL.



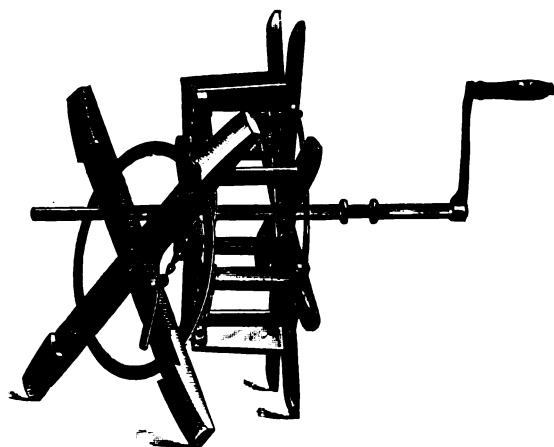
| Trade Word. | Price. |
|------------------------|---------------|
| Recur. As per cut..... | each, \$10.50 |

TAKE-UP REEL IMPROVED.



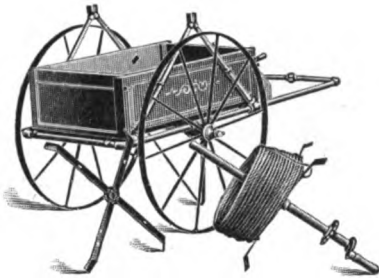
| Trade Word. | Price. |
|-----------------------|---------|
| Recurrence. Each..... | \$22.00 |

The improvement in this reel consists of a separate guard piece (shown in cut) which is slipped on shaft and fastened with a flat key. To empty the reel, lift the spool out of buck, draw the key, and turn the reel on end, the guard piece and case will then come off together. This arrangement does away with the loose toggle guard irons of the old style reel and is much handier.

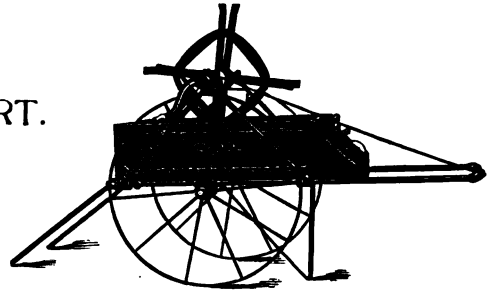


Showing spool with guard removed.

TOOLS.



LINEMAN'S CART.



Built especially for handling electric light, telephone and telegraph wire, pays out, tightens and takes up wire without a snarl. Something every lineman will appreciate.

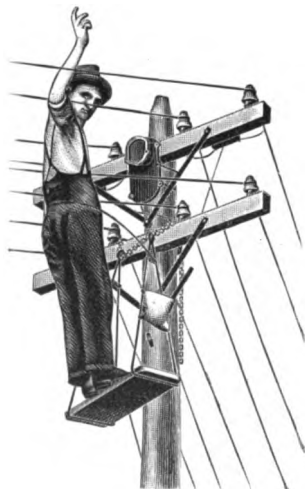
OPERATION.

For paying out, put on coil by removing slotted end of reel; do not cut binding cords until head of reel has been replaced and made tight. Put shaft in holder and pass rope brake three or four times around the same, fasten brace and ratchet dog in place, fasten one end of wire and go ahead; the tension on brake rope will prevent wire from paying out too fast; when a reasonable amount has been paid out use the crank to tighten.

In taking up wire, one end of same should be fastened, the other end can be bent around one of the rods of reel. One man uses the crank and another guides the cart, pushing it back to receive the wire at a proper tension; after all is on tie in two or three places before removing from wheel. The box holding soldering outfit may be removed and hung up in station when not in use.

Trade Word.

Redemption.....each, **\$20.00**



LINEMAN'S STAGE.

Perfectly portable, attaches to any pole. Weighs 15 pounds.

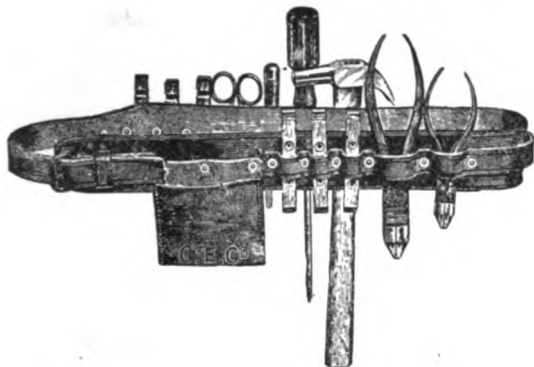
Strong and safe.

Trade Word.

Opacity.....each, **\$6.00**

TOOLS.

WIREMEN'S TOOL BELTS.

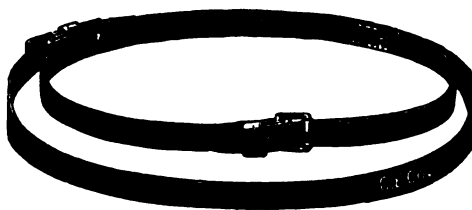


Trade Word.
Nationally. Best leather.....each, \$1.75

Price.

LINEMEN'S BODY BELTS.

For strapping to pole or cross arm.



Trade Word.
Native. Best leather.....each, \$1.50

Price.

LINEMEN'S TOOL BAGS.

In canvas or leather.



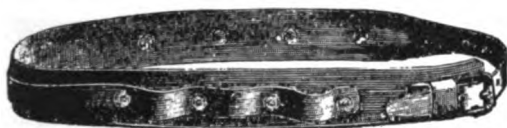
Trade Word.
Rectitude. Each.....\$1.25

Price.

Trade Word.
Natively. Canvas, with handles.....each, \$5.00
Nativeveness. Leather " " " " 7.00

Price.

LINEMAN'S TOOL BELT.



RUBBER GLOVES.

Order rubber gloves three sizes larger than kid gloves, that is if No. 7 kid glove is worn, a No. 10 rubber glove is needed.

Sizes 10, 11 and 12 carried in stock. Always state size wanted when ordering.



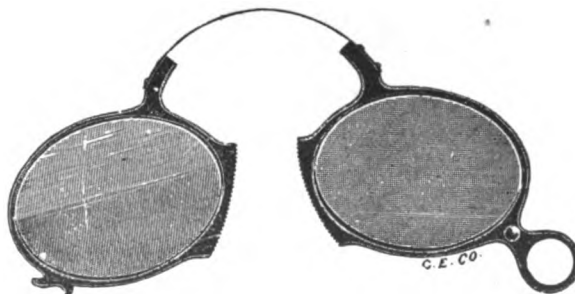
Trade Word.
Rector. With gauntlets (see cut)per pair, \$2.50
Rectorship. Without gauntlets..... " 2 35

Price

LAMP TRIMMERS' DARK EYE-GLASSES.

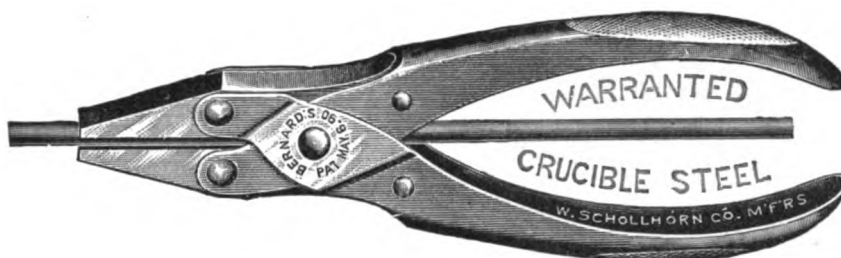
Trade Word.
Bear. Per pair\$0.50

Price.



TOOLS.

BERNARD'S OPEN THROAT PARALLEL PLAYERS.



Flat Nose.

Round Nose.

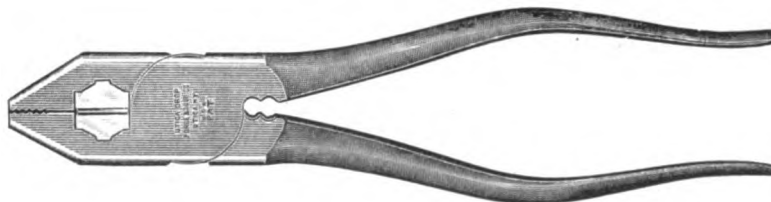
| Trade Word. | Length. | Width between Open Jaws. | Price. | Trade Word. | Length. | Width between Open Jaws. | Price. |
|---------------|-------------|--------------------------|-----------------|---------------|-------------|--------------------------|------------------|
| Coot | 4 1/2 inch. | 1/4 inch. | per doz. \$7 00 | Copperish.... | 4 1/2 inch. | 1/4 inch. | per doz., \$7.00 |
| Copaiva | 5 1/2 " | 3/8 " | " 9 00 | Coppice | 5 1/2 " | 3/8 " | " 9.00 |
| Copist | 6 1/2 " | 1/2 " | " 11.50 | Copse | 6 1/2 " | 1/2 " | " 11.50 |
| Coplant | 7 1/2 " | 3/4 " | " 15.00 | | | | |

BERNARD'S COMBINED PARALLEL AND CUTTING PLAYERS.



| Trade Word. | Length. | Will Cut. | Width between Plying Jaws when Open. | Price. |
|-----------------|-------------|---------------------|--------------------------------------|------------------|
| Copybook..... | 4 1/2 inch. | No. 9 B. & S. Wire. | 1/4 inch. | per doz. \$11.50 |
| Coquetting..... | 5 1/2 " | " 7 " " | 3/8 " | " 14.50 |
| Coralline..... | 6 1/2 " | " 5 " " | 1/2 " | " 17 50 |
| Cordon..... | 7 1/2 " | " 3 " " | 3/4 " | " 24.00 |

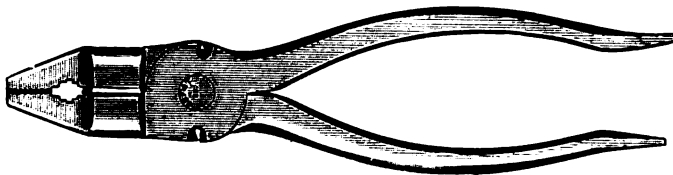
ROYAL BLUE SIDE CUTTING REVERSIBLE AND RENEWABLE JAW PLAYERS AND SPLICING TOOL.



| Trade Word. | Price. |
|-----------------------------|--------------------|
| Opaque. 8 inch, plain | per dozen, \$48.00 |
| Openly. Extra jaws..... | each, .20 |
| Stack. Nickel plated | per dozen, 52.00 |

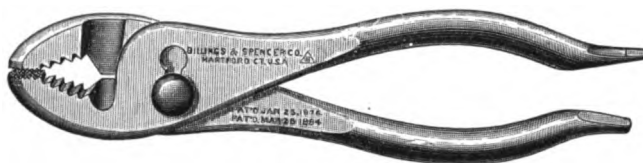
TOOLS.

UNIVERSAL SIDE CUTTING PLYERS.



| | | | | | |
|-------------|--------------------|--------------|-------------|----------------------------|--------------|
| Trade Word. | | Price. | Trade Word. | | Price. |
| Operate. | 7 inch, plain..... | each, \$1.75 | Gelatinous. | 7 inch, nickel plated..... | each, \$2.00 |

PEASE'S COMBINATION PLIERS.

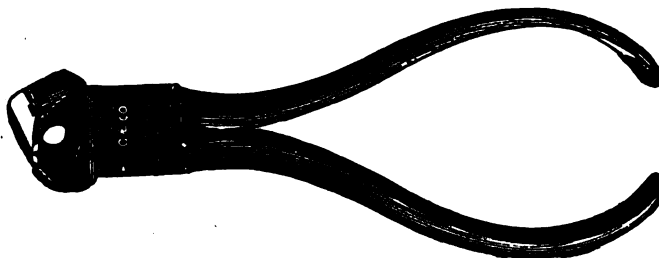


Pipe pliers, wire cutters, wrench and screw driver, combined.

By shifting from one hole to the other, it changes the 6 inch from size of gas burner to $\frac{3}{4}$ -inch pipe, or from $\frac{1}{8}$ inch round to 1 inch round or square. The 10 inch takes from $\frac{1}{4}$ inch to $1\frac{1}{4}$ inch round or square.

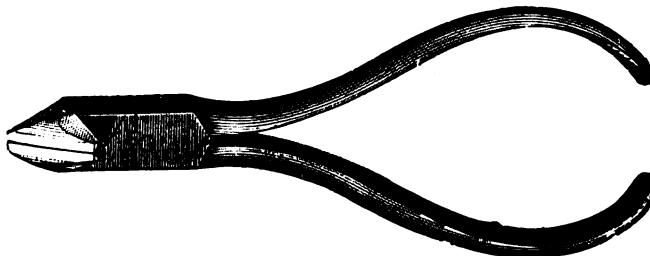
| | | | | | |
|--------------|------------------------|--------------|-------------|-------------------------|--------------|
| Trade Word. | | Price. | Trade Word. | | Price. |
| Condole. | 6 inch, plain..... | each, \$2.00 | Condolence. | 10 inch, plain..... | each, \$3.00 |
| Condolement. | 6 " nickel plated..... | " 2.40 | Condoler. | 10 " nickel plated..... | " 3.50 |

END-CUTTING NIPPERS.



| | | | | | |
|-----------------------------|------------------------|--------------|--------------|------------------------|--------------|
| All steel, finely finished. | | | | | |
| Trade Word. | | Price. | Trade Word. | | Price. |
| Content. | 5 inch, plain..... | each, \$1.00 | Contentious. | 6 inch, plain..... | each, \$1.25 |
| Contention. | 5 " nickel plated..... | " 1.25 | Contentless. | 6 " nickel plated..... | " 1.50 |

NOSE-CUTTING DIAGONAL NIPPERS.



All steel, finely finished.

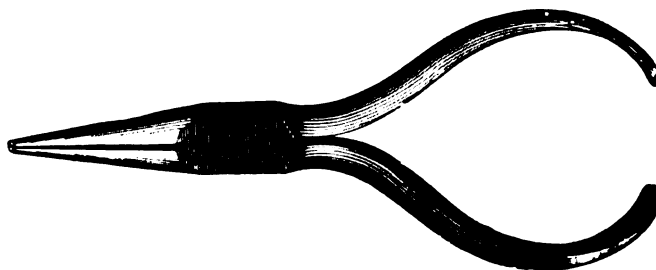
Knives placed at 45 degrees from handle, which permits cutting flush with surface.

| | | | | | |
|--------------|--------------------------|--------------|-----------------|--------------------------|--------------|
| Trade Word. | | Price. | Trade Word. | | Price. |
| Contentment. | Size, 5 inch, plain..... | each, \$1.00 | Contentminable. | Size, 6 inch, plain..... | each, \$1.25 |
| Contents. | " 5 " nickel plated..... | " 1.25 | Contentminous. | " 6 " nickel plated..... | " 1.50 |

TOOLS.

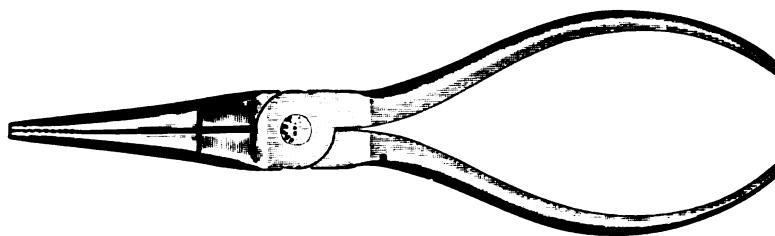
CHAIN PLIERS, LONG OVAL POINTS, STEEL, EXTRA QUALITY.

Flat long nose; same price as oval.



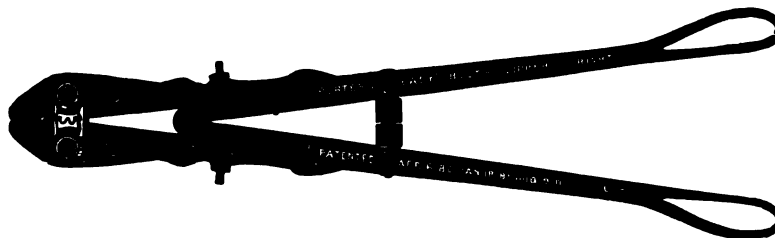
| Trade Word. | Size, 4 inches, plain | Price. |
|---------------|--------------------------|--------|
| Consultation. |each, | \$0.50 |
| Consulted. | " 5 " " | .60 |
| Consulting. | " 6 " " | .75 |
| Contabulate. | " 4 " nickel plated..... | .70 |
| Contagious. | " 5 " " " | .80 |
| Contagiously. | " 6 " " " | 1.00 |

LONG NOSE SIDE CUTTING PLYER.



| Trade Word. | Price. |
|------------------------------------|-------------------|
| Operation. 5½ inches, plain..... | per doz., \$15.00 |
| Operative. 5½ " nickel plated..... | " 18.00 |

PORTER'S EASY WIRE CUTTERS.



| Trade Word. | No. | Price. |
|-------------|-------------------------------|--------------|
| Rebel. | 1 Will cut 3/8 inch wire..... | each, \$3.00 |
| Rebelled. | 2 " 1/2 " | " 4.25 |
| Rebelling. | 3 " 5/8 " | " 5.50 |

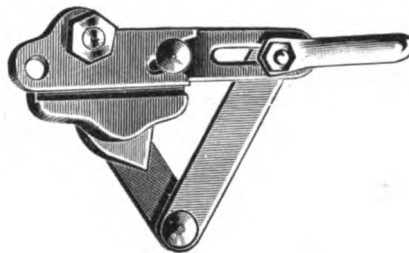
TOOLS.

BUFFALO GRIP.



Trade Word. Price.
 Oplate. Small size for No. 6 wire and
 smaller.....each \$5.00
 Opinion. Large size for trolley wire.. " 7.50

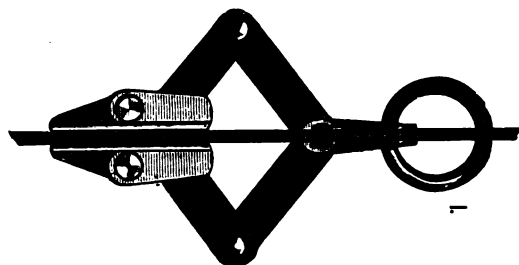
WESTFIELD GRIP.



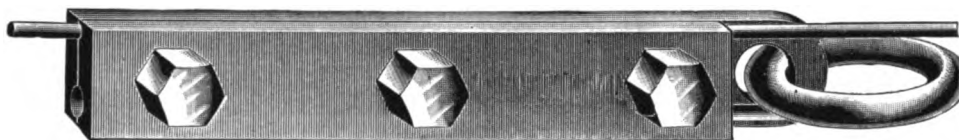
Trade Word. Price.
 Receding. For No. 4 B. & S. wire and
 finereach, \$3.90

PARALLEL WIRE STRETCHER.

Trade Word. Price.
 Receipt. No. 0 Telephone size suitable for repairmen,
 arranged for a strap.....each, \$4.50
 Receipted. No. 1. For No. 0 B. & S. wires and
 finereach, 5.00



SPLICING TOOLS.



Trade Word. Parallel screw clamp for 0 and 00 wires. Price.
 Receipting. Length of grip 11 incheseach, \$3.25

DOUBLE STEEL SPLICING WRENCH.

For iron wires or heavy copper wires.



Trade Word. Price.
 Receivable. For No. 4 and 6 wireeach, \$1.20
 Receive. For No. 8 and 9 wire " 1 20
 Prices quoted on application for larger sizes.

STEEL TIE WRENCH.

For hard drawn copper wire.



Trade Word. Price.
 Receivedeach, \$1.20

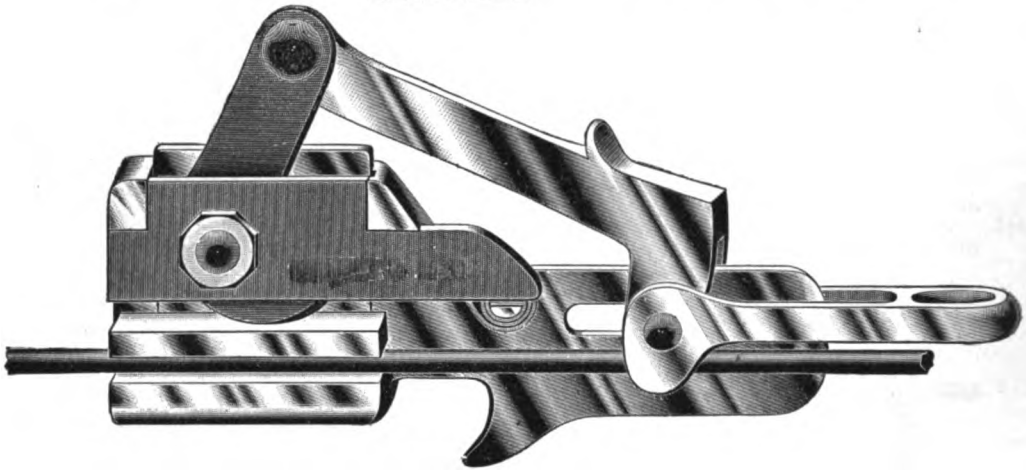
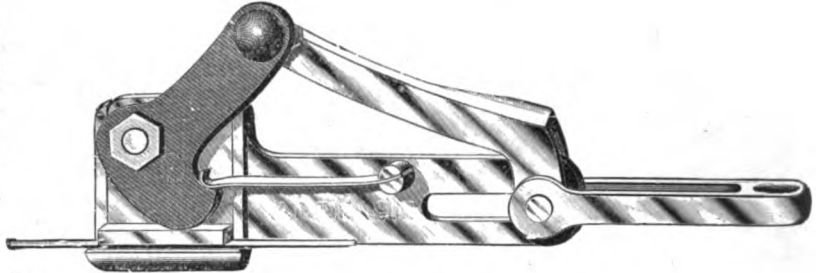
The purpose of this tool is to make the tie around the line wire where it is fastened to the insulators.
 It will wind the tie wire around smoothly without marring same.

TOOLS.

COMPOUND ECCENTRIC CLAMPS.

In these clamps the wire is held between two flat brass jaws, which open and close automatically. They have a long flat grip, and are guaranteed to hold the wire without bruising or kinking it.

| | | |
|-------------|------|--|
| Trade Word. | No. | Price. |
| Condesced. | 370. | For hard drawn copper wire, No. 6 B. & S. and finer..... |
| | | \$3.50 |

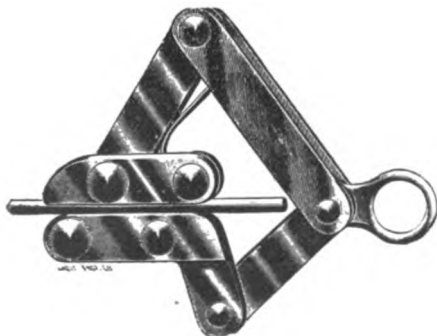
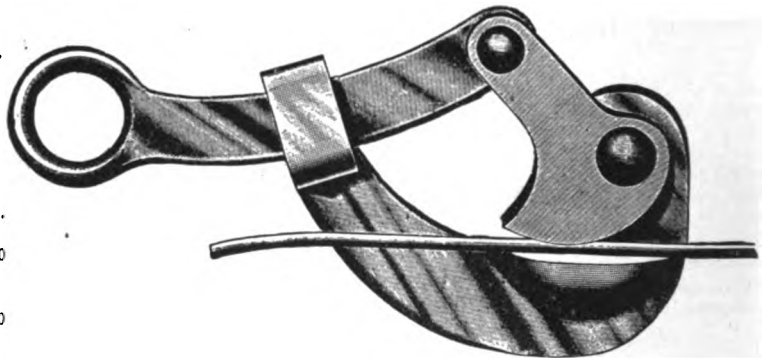


| | | | |
|-------------|------|---|--------|
| Trade Word. | No. | | Price |
| Condign. | 371. | Light, for No. 4 B. & S. and finer..... | \$6.00 |
| Condition. | 372. | Extra Heavy, for No. 4 to 000 B. & S..... | 7.50 |

HAVEN PATENT STEEL ECCENTRIC CLAMP.

Positive in grip. Quick in action. Will not injure the wire.

| | | |
|-------------|------|---|
| Trade Word. | No. | Price. |
| Concurrent. | 368. | For No. 8 B. & S. wire and finer..... each, \$2.40 |
| Concurring. | 369. | For from No. 6 B. & S. wire to 1/4 inch guy cable..... each, \$4.50 |



THE AMERICAN GRIP.

Nickel plated.

Made wholly of steel, easily placed on wire, is self-locking by spring pressure and easily released. Has a center draft, pulls straight and does not kink the wire, jaws are parallel and smooth, can be used on either iron or copper and will take No. 6 and smaller.

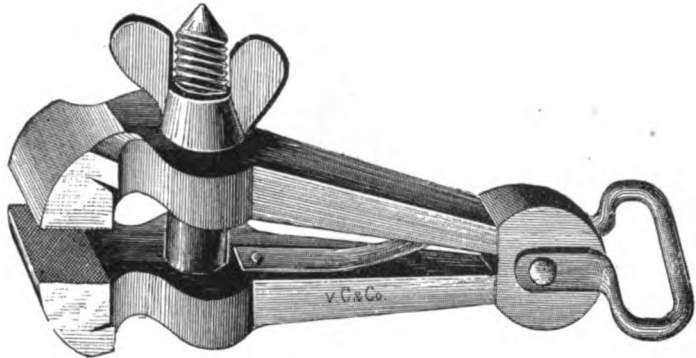
| | | |
|-------------|------|------------------|
| Trade Word. | No. | Price. |
| Recall. | 350. | Each..... \$4.00 |

TOOLS.

VICES.

Imported, every pair guaranteed.

| Trade Word. | Price. |
|---------------------------------------|--------|
| Console. 5½ in., extra quality..each, | \$1.90 |
| Recast. 5½ " " " | |
| copper face.....each, | 2.70 |

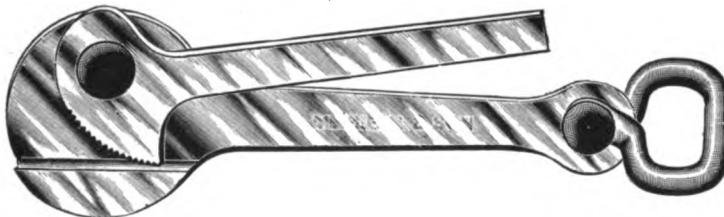


"COME ALONG" ECCENTRIC CLAMP.



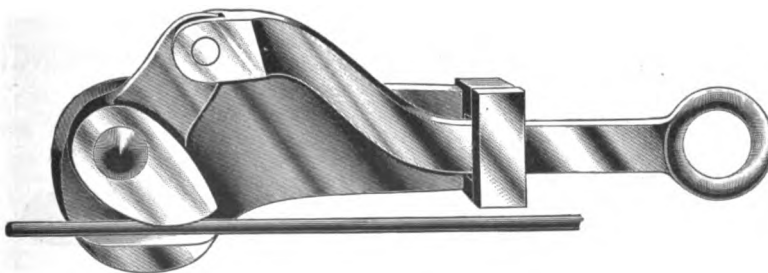
| Trade Word. | Price Each. |
|--|-------------|
| Consenting. Regular size for No. 9, B. & S. wire and finer.. | \$0.75 |
| Consequence. Large " " " 3, " " " " | 1.65 |
| Consequently. Extra large size for No. 0000, " " " " | 1.90 |
| Conservator. Straps only | 1.00 |

COMMON ECCENTRIC CLAMP.



| Trade Word. | Price. |
|---|--------|
| Conserve. Steel for No. 8, B. & S. wire and finer.....each, | \$1.30 |
| Consider. Brass " " 8, " " " " | 1.80 |
| Consideration. Straps only..... | 1.00 |

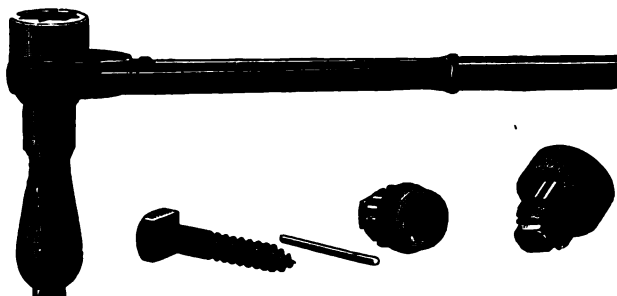
LANDEE'S CLAMP.



| Trade Word. | No. | Price. |
|-------------|------|---|
| Recede. | 365. | Steel for No. 8 B. & S. wire and finer.....each, \$2.30 |

TOOLS.

LOWELL LAG-SCREW RATCHET WRENCH.



Designed for turning lag screws, coach screws, nuts or bolts, either way, *without taking off the wrench*. These wrenches are changeable for various sizes, by means of the different sockets.

For overhead work and work in close places, this tool is invaluable, while it always saves time in the work for which it is designed.

We are prepared to fill orders promptly for sockets, to take any of the following sizes of nuts:

$\frac{1}{2}$, $\frac{5}{8}$, $\frac{3}{4}$, $\frac{7}{8}$, 1, $1\frac{1}{8}$, $1\frac{1}{4}$, square. $\frac{3}{4}$, $\frac{7}{8}$, 1, $1\frac{1}{8}$, $1\frac{1}{4}$, $1\frac{1}{2}$, hexagon.

| Trade Word. | | Net Price. |
|-------------|---|------------|
| Reck. | Wrench with a single socket, 12-inch handle.....each, | \$2. 00 |
| | Extra socket for same..... | " .40 |
| Reckless. | Wrench with a single socket, 16-inch handle | " 3.00 |
| | Extra sockets for same..... | " .75 |

N. B.—Order by size of nut and bolt head, not by size of bolt.

STEEL LAG-SREW WRENCH.



| Trade Word. | | Price. |
|-------------|--|--------|
| Sparl. | Jaw is made tapering to accommodate variations in bolt heads.....each, | \$1.30 |

COMBINATION LAG-SCREW AND NUT WRENCH.



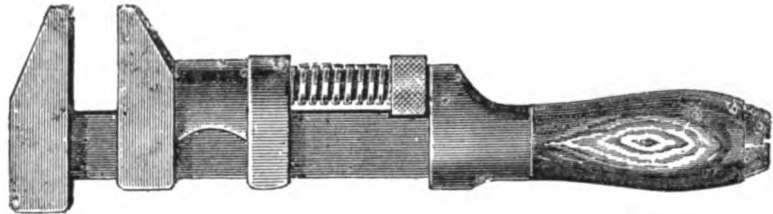
| Trade Word. No. | | Price. |
|-----------------|---|--------|
| Spin. | 326. Will take lag screws and nuts for $\frac{3}{8}$ inch, $\frac{1}{2}$ inch and $\frac{5}{8}$ inch bolts.....each | \$1.80 |

TOOLS.

GENUINE COE SCREW WRENCH.

Patent Knife Handle Wrought Bar.

| Trade Word. | Black. | Price. |
|-------------|--------------------|---------|
| Cool. | 6 ins. . . . each, | \$ 0.75 |
| Cooled. | 8 " " | .85 |
| Cooling. | 10 " " | 1.00 |
| Cooler. | 12 " " | 1.20 |
| Coolish. | 15 " " | 2.00 |



STILLSON'S WRENCHES.



| Trade Word. | Length open. | Takes. | Double spring. | Price. |
|-------------|--------------|--|----------------|--------|
| Fustic. | 10 inches. | $\frac{1}{8}$ inch wire to 1 inch pipe | each, | \$2.25 |
| Futile. | 14 " | $\frac{1}{4}$ " " " $1\frac{1}{2}$ " " | " | 3.00 |
| Future. | 18 " | $\frac{1}{4}$ " " " 2 " " | " | 4.00 |

WRIGHT WRENCHES.



| Length open, inches | 6 | 8 | 10 | 14 | 18 | 24 |
|---------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-----------------|
| Take from | $\frac{3}{8}$ 1 $\frac{1}{8}$ | $\frac{3}{8}$ 1 $\frac{1}{2}$ | $\frac{3}{8}$ 1 $\frac{3}{4}$ | $\frac{3}{8}$ 2 $\frac{1}{2}$ | $\frac{3}{8}$ 3 $\frac{1}{2}$ | $\frac{3}{8}$ 4 |
| Price each | \$2.00 | \$2.00 | \$2.25 | \$3.00 | \$4.00 | \$6.00 |
| Extra tooth plates | .30 | .30 | .30 | .40 | .40 | .40 |
| Extra back jaw | .30 | .30 | .30 | .40 | .40 | .40 |
| Extra screw | .15 | .15 | .15 | | | |

TOOLS.

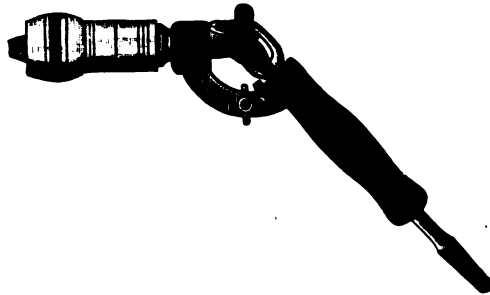
AMIDON
CORNER BRACE.

Indispensable for boring in a corner,
and should be in every wireman's kit.

| | | | |
|-------------|---------------|-------|--------|
| Trade Word. | | | Price. |
| Covertly. | 8 inch sweep. | each, | \$1.30 |
| Coverture. | 10 " " | " | 4.50 |



PATENT UNIVERSAL ANGULAR BIT STOCK.



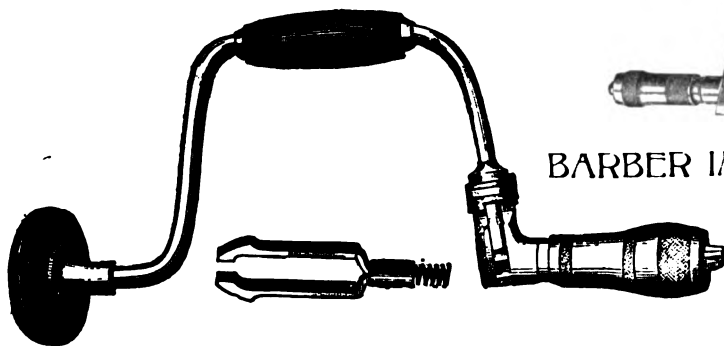
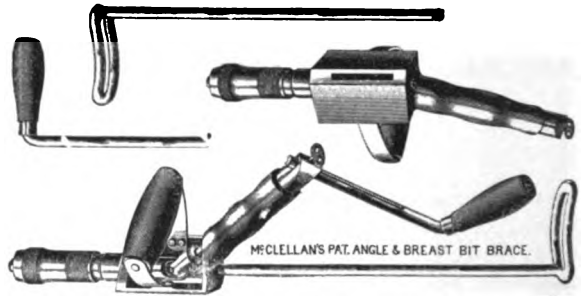
The universal angular bit stock is to be used in connection with a brace and bit for boring holes in places where the brace and bit alone could not be used. As will be seen, it can be placed in many angles or positions between the upper and lower braces (represented in the accompanying cut). The ability to vary the angles, either at the commencement or during the operation of boring a hole, is an important feature.

| | | |
|-------------|------|--------|
| Trade Word. | | Price. |
| Crag. | Each | \$3.50 |

PATENT GUIDE FRAME COMBINATION ANGLE AND BREAST BRACE.

Especially adapted to work where it would be impossible to bore a hole with usual tool. Handle can be adjusted for a sweep of from 4 to 13 inches.

| | | |
|-------------|------|--------|
| Trade Word. | | Price. |
| Reckon. | Each | \$5.00 |

BARBER IMPROVED RATCHET
BRACE.

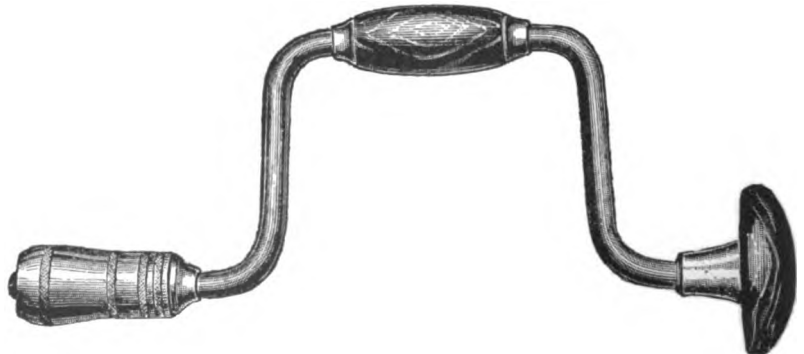
Steel sweep, nickel plated, lignumvitæ head and rosewood handle. Forged steel jaws, with Dolan's patent ratchet.

| | | |
|-------------|------------------|--------------|
| Trade Word. | | Price. |
| Convinced. | 8 inch sweep.... | each, \$3.50 |
| Convincing. | 10 " " " " " " | 4.00 |

BUFFALO BRACE.

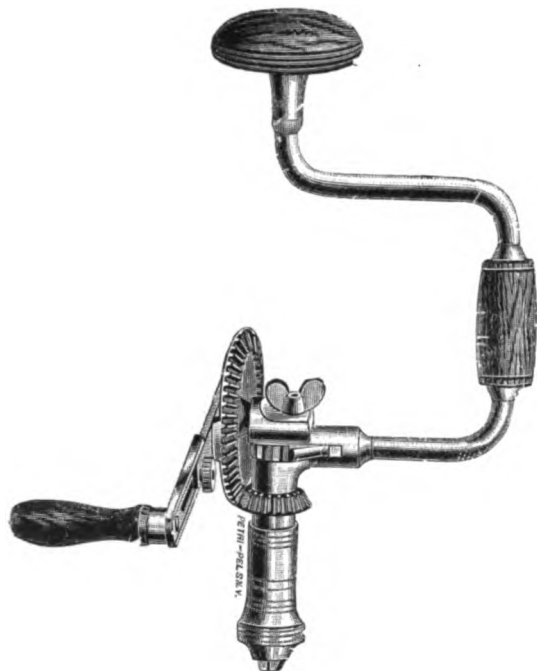
Walnut head and handle.

| | | |
|-------------|---------------|--------|
| Trade Word. | | Price. |
| Convince. | 8 inch sweep, | |
| | each | \$1.25 |



TOOLS.

DRILL BRACES AND BREAST DRILLS.



Miller's Falls Drill Brace.

This is a ten-inch sweep Ratchet Brace, with gear wheels speeded about three to one, to be used for drilling. When not needed, the gear wheel can be removed in one second, leaving a ratchet brace. This brace is made of steel, and is heavily nickel-plated, with rosewood handle and lignumvitæ head. The jaws are of forged steel, and will center and hold firmly round twist drills from $\frac{1}{8}$ to $\frac{1}{4}$ of an inch in diameter. Also square shank bits and drills of all sizes. Also square and flat screw-driver bits. In fact, it will hold perfectly tool shanks of any size or shape. There is no other chuck in existence which will do this.

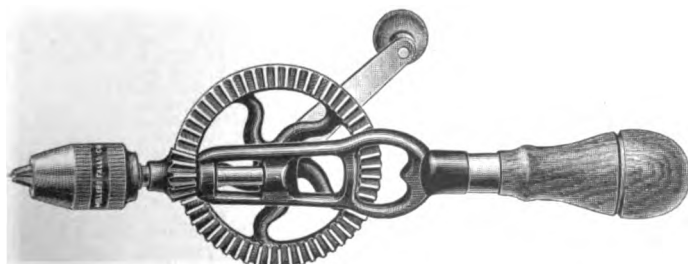
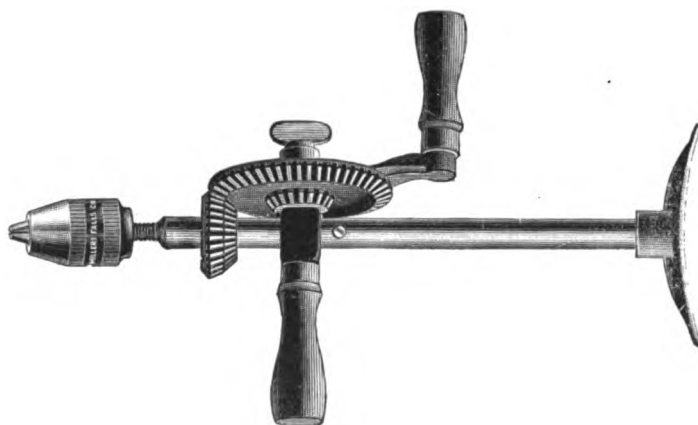
With each drill brace we send an extra set of forged steel jaws, mainly to be used for holding round twist drills less than one-eighth of an inch in diameter. As will be noticed in the cut, the large gear wheel has an extension handle to give it more power when needed.

| | |
|---|--------------------|
| Trade Word. | Price. |
| Reckoned. Drill brace, complete | per dozen, \$36.00 |

Breast Drill.

This is the largest size drill made, the drive wheel being six inches in diameter, giving a speed of $4\frac{1}{2}$ to 1. It is double geared.

| | |
|--------------------------------|---------|
| Trade Word. | Price. |
| Reckoning. Per dozen | \$48.00 |



No. 1.

These drill stocks are made of malleable iron, with steel spindles and rosewood head and handle. The jaws are of forged steel and will hold perfectly any sized drills named below. They are the only drill chucks in use which will hold Morse twist drills from $\frac{1}{8}$ to $\frac{1}{4}$ inch. Nickel plated. Six drill points with each.

| | |
|--|--------------|
| Trade Word. | Price. |
| Cramp. No. 1, single gear, hollow handle | each, \$2.50 |
| Cramping. No. 1B double gear, same chuck | each, 3.00 |

TOOLS

BELL HANGER AND ELECTRICIAN DRILLS.

Style E. Syracuse twist drill bit.

These are intended for wood drills, but will pierce plaster and brick walls. They can easily be sharpened when dull.



| Sizes in 32ds of an inch. | 12-inch. | 18-inch. | 24-inch. | 30-inch. | 36-inch. |
|------------------------------|----------|----------|----------|----------|----------|
| | Dozen. | Dozen. | Dozen. | Dozen. | Dozen. |
| 6 | \$ 5.00 | \$ 7.00 | \$ 9.00 | \$11.00 | \$13.00 |
| 8 | 5.00 | 7.00 | 9.00 | 11.00 | 13.00 |
| 10 | 5.50 | 7.50 | 9.50 | 12.00 | 13.00 |
| 12 | 6.00 | 8.00 | 10.00 | 12.00 | 13.00 |
| 14 | 7.00 | 9.00 | 11.00 | 13.00 | 14.00 |
| 16 | 8.00 | 10.00 | 12.00 | 14.00 | 15.00 |
| 18 | 9.00 | 11.00 | 13.00 | 15.00 | 16.00 |
| 20 | 10.00 | 12.00 | 14.00 | 15.00 | 16.00 |
| 22 | 11.00 | 13.00 | 15.00 | 16.00 | 17.00 |
| 24 | 12.00 | 14.00 | 16.00 | 17.00 | 18.00 |
| 26 | 13.00 | 15.00 | 17.00 | 18.00 | 18.00 |
| 28 | 14.00 | 16.00 | 18.00 | 19.00 | 19.00 |
| 30 | 15.00 | 17.00 | 19.00 | 20.00 | 20.00 |

Use numbers and lengths in ordering these drills.

ADJUSTABLE MALLEABLE IRON HANDLE.

For use where a brace is inconvenient.



Trade Word.

Reckoner. Each Price. \$0.30

DIAMOND POINT BRICK DRILLS.

Solid cast steel.



Trade Word.

| | | | |
|-------------|----------------------|----------|--------|
| Reclaim. | 1/4 x 9 inches..... | per lb., | \$0.80 |
| Reclaimed. | 3/8 x 12 inches..... | " | .80 |
| Reclaiming. | 3/8 x 15 inches..... | " | .80 |

HOLLOW BRICK DRILL.



This drill being provided with a serrated edge, quick drilling is assured. Being hollow the dust and dirt are collected, thus making it a very desirable tool for interior use.

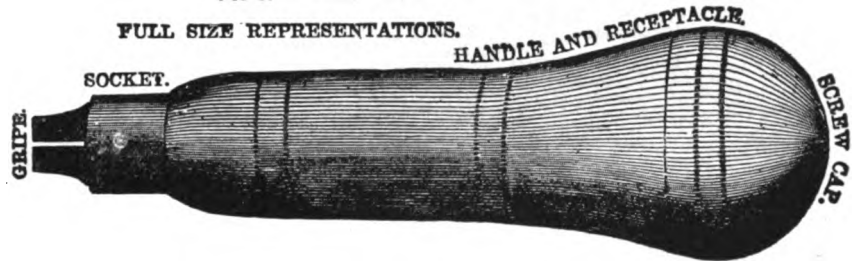
Trade Word.

Covenant. Each Price. \$0.90

TOOLS.

THE "MULTUM IN PARVO" POCKET TOOL
HANDLE WITH TOOLS.

FULL SIZE REPRESENTATIONS.



No. 1, BRAD-AWL.

No. 2, BRAD-AWL.

No. 3, BRAD-AWL.

No. 4, BRAD-AWL.

No. 5, BRAD-AWL.

No. 6, BRAD-AWL.

No. 7, BRAD-AWL.

No. 8, BRAD-AWL.

No. 9, BRAD-AWL.

No. 10, BRAD-AWL.

No. 11, CHISEL.

No. 12, CHISEL.

No. 13, CHISEL.

No. 14, BELT-AWL.

No. 15, REAMER.

No. 16, SCREW-DRIVER.

No. 17, COUNTERSINK.

No. 18, SCRATCH-AWL.

No. 19, GOUGE.

No. 20, SAW.



The handle is of finely finished wood, and is $4\frac{1}{4}$ inches long, containing 20 tools, $1\frac{1}{4}$ to $1\frac{3}{4}$ inches in length. The tools are all contained in the handle when not in use.

Trade Word.

Controversial.

Complete, 20 tools, with gouge and saw.....each, \$1.25

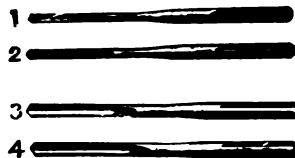
Price.

JOHNSON AUTOMATIC BORING TOOL.

YANKEE AUTOMATIC
DRILL, No. 40.

This tool embodies improvements over those now in the market in the magazine for drills which is found in handle. The chuck is of new design, is stronger and will last longer than any now used in such tools. In hard or tough woods this drill can be operated as a ratchet. The tool is made of brass, nickel plated and finely finished. The material and workmanship throughout are of the best. Eight drills are furnished with each tool, one each $\frac{1}{16}$, $\frac{1}{8}$, $\frac{3}{16}$, $\frac{1}{4}$, $\frac{5}{16}$, $\frac{3}{4}$, $\frac{1}{2}$, $\frac{1}{4}$ inch, shown full size in cut. The entire length of tool, inclusive of drill, as in illustration, is $10\frac{1}{2}$ inches.

Trade Word. Recant. Price....each, \$2.50



A strong, compact and quick-acting tool. It soon pays for itself in time gained.

Trade Word.

Courtship. Complete with eight drills of different sizeeach, \$3.50

Price.

TOOLS.

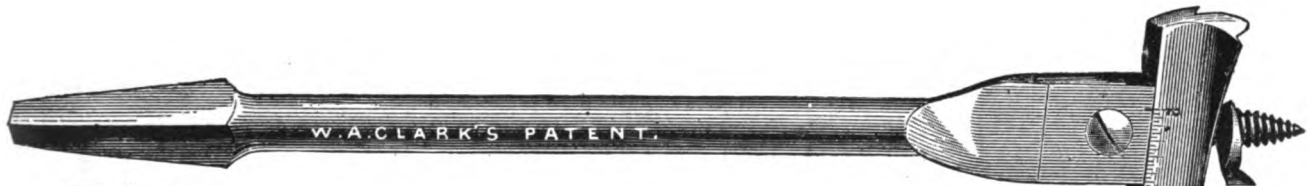
AUGER BITS.



Genuine Jennings' patent, extra cast steel.

| Trade Word. | Sizes in Sixteenths | | Price. | Price. & | Trade Word. | Sizes in Sixteenths. | | Price. | Price. |
|-------------|---------------------|-----------|--------|--------------|-------------|----------------------|-----------------|--------------|--------|
| Conversion. | 4. | per doz , | \$3.00 | each, \$0.25 | Convex. | 9. | per doz, \$5.20 | each, \$0.44 | |
| Conversive. | 5. | " | 3.40 | " .29 | Convexly. | 10. | " 5.60 | " .47 | |
| Convert. | 6. | " | 3.80 | " .32 | Convey. | 12. | " 6.60 | " .55 | |
| Converted. | 7. | " | 4.40 | " .37 | Conveyance. | 16. | " 9.00 | " .75 | |
| Converting. | 8. | " | 4.80 | " .40 | | | | | |

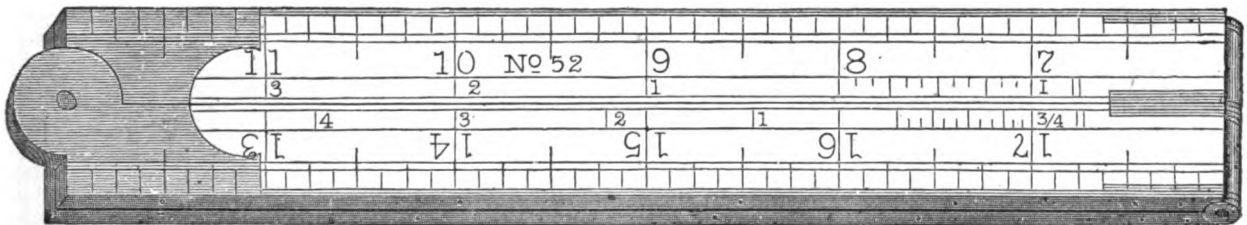
EXPANSION BITS, CLARK'S.



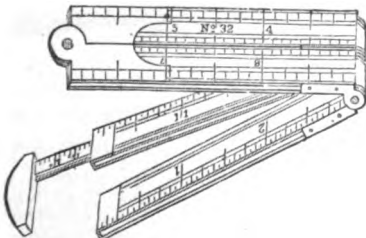
| Trade Word. | Price. |
|---|--------------|
| Convicted. With two cutters. One bores from $\frac{3}{8}$ to $1\frac{1}{4}$ and the other from $1\frac{1}{4}$ to 3 inches. | each, \$3.50 |
| Convict. With two cutters. One bores from $\frac{1}{2}$ to $\frac{3}{8}$, the other from $\frac{3}{8}$ to $1\frac{1}{2}$ inch. | each, \$2.50 |

BOXWOOD RULES.

Two foot, four fold.



| Trade Word. | No. | Price. |
|--------------|---|--------------|
| Corruptible. | 51. Arch joints, middle plates, $\frac{1}{8}$, $\frac{1}{10}$, $\frac{1}{12}$ and $\frac{1}{16}$ ins., 1 in. wide | each, \$0.30 |
| Corsair. | 52. " " half bound plates, $\frac{1}{8}$, $\frac{1}{10}$, $\frac{1}{12}$ and $\frac{1}{16}$ ins., 1 in. wide | " .50 |

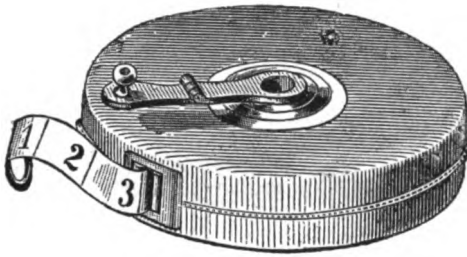


CALIPER RULE.

Boxwood arch joints, edge plates, four fold.

| Trade Word. | No. | Price. |
|--------------|---|--------------|
| Reclaimable. | 36 $\frac{1}{2}$. 12 inch, $\frac{3}{8}$ inch wide | each, \$0.80 |

TOOLS.

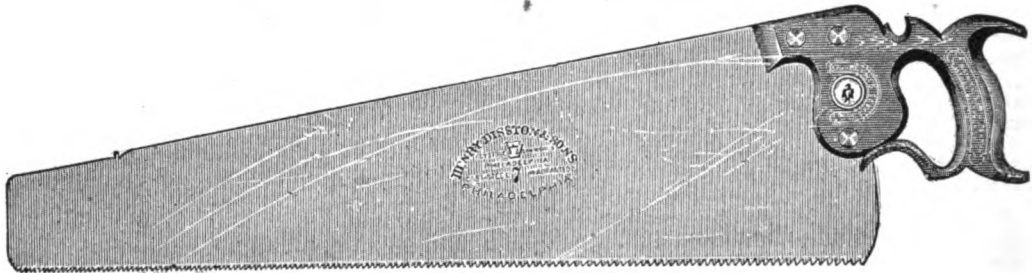


MEASURING TAPES.

Cotton tape, 1/2 inch wide.

| Trade Word. | | No. | Price. |
|-------------|--------------|-----|--------------|
| Cortege. | 25 feet..... | 30 | each, \$0.06 |
| Cosmetic. | 50 "..... | 33 | " .80 |
| Cossack. | 75 "..... | 35 | " 1.00 |
| Costing. | 100 "..... | 37 | " 1.20 |

HIGHEST QUALITY DISSTON'S HAND SAW.



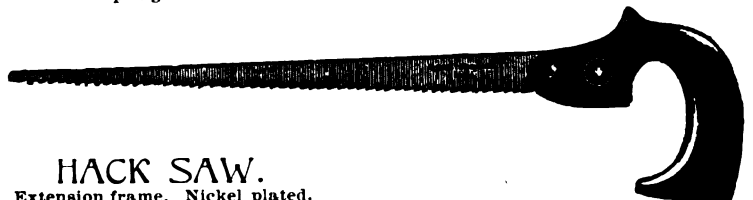
D-8, skew back saw, apple handle, polished edge, 5 improved screws.

| Trade Word. | Size. | | Price. |
|-----------------|-------------------------------|--|--------------|
| Corrective | 16 inches, extra quality..... | | each, \$2.80 |
| Correctly. | 18 " " " "..... | | " 3.20 |
| Correspond. | 20 " " " "..... | | " 3.50 |
| Correspondence. | 24 " " " "..... | | " 4.00 |

COMPASS SAW.

Spring steel.

| Trade Word. | Length. | Price. |
|-------------|----------------|--------------|
| Cornucopia. | 12 inches..... | each, \$0.90 |



HACK SAW.

Extension frame. Nickel plated.

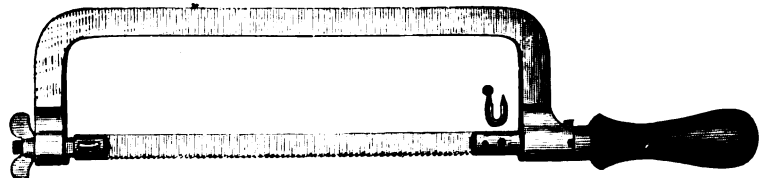


| Trade Word. | Price. |
|---|--------------|
| Corona. Frame holds blades from 8 to 12 inches..... | each, \$2.00 |

HACK SAW.

Solid frame. Nickel plated. For 8 inch saws only.

| Trade Word. | Price. |
|--------------------------------------|--------|
| Coronal. Frame without blades, each, | \$1.25 |



HACK SAW BLADES.

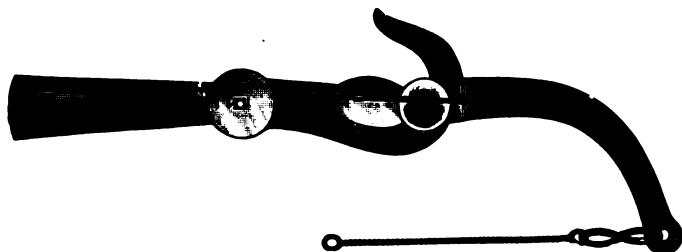


| Trade Word. | Length. | Price |
|--------------|---------------------------------------|-------------------|
| Coroner. | 6 inches, unbroken packages only..... | per dozen, \$1.10 |
| Coroner. | 7 " " " "..... | " 1.20 |
| Corporal. | 8 " " " "..... | " 1.30 |
| Corporally. | 9 " " " "..... | " 1.40 |
| Corporate. | 10 " " " "..... | " 1.70 |
| Corporation. | 11 " " " "..... | " 1.90 |
| Corpulence. | 12 " " " "..... | " 2.10 |
| Corpulent. | | |

When sent by mail 6 cents per dozen extra will be charged for postage.

TOOLS.

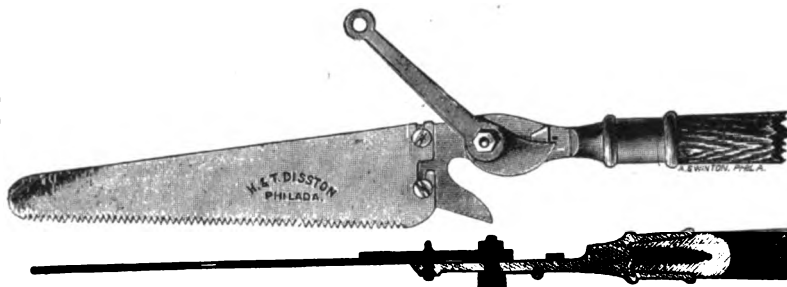
CENTRAL TREE TRIMMER.



Made of best tool steel, all parts heavily constructed and will stand hard and constant use, will cut a limb $1\frac{1}{2}$ inches in diameter.

Trade Word. Price.
Reclining. Trimmer, only..... each, \$3.00

Trade Word. Price.
Congestive. Hook and saw.....each, \$3.50
Reclining. Trimmer only..... " 1.00

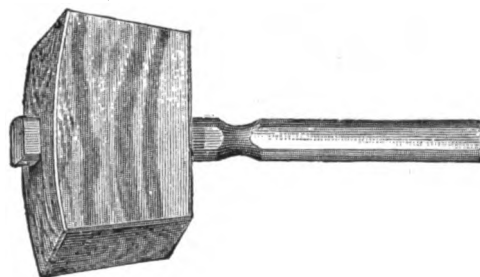
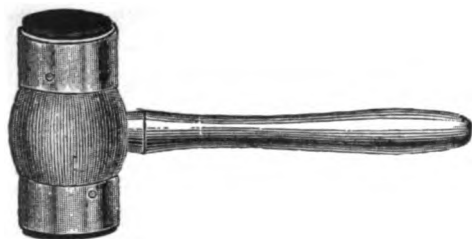


ELECTRICIAN'S HAMMER.

Trade Word. Price.
Recluse. 8 ounces.....each, \$1.00



MALLET.



Square Hickory.

| Trade Word. | Size. | Price. |
|-------------|--|-------------------|
| Coral. | $2\frac{1}{4} \times 3\frac{1}{4} \times 6$ inches..... | per dozen, \$4.00 |
| Coralite. | $2\frac{3}{4} \times 3\frac{3}{4} \times 6\frac{1}{2}$ inches..... | " 5.00 |

The heads of these mallets are topped with a layer of vulcanized fibre. Wood body and handle. Heads easily replaced.

| Trade Word. | Diameter. | Price. |
|-------------|-----------------------|--------------|
| Coquet. | 2 inches..... | each, \$1.10 |
| Coquetry. | $2\frac{1}{2}$ "..... | " 1.30 |
| Coquettish. | 3 "..... | " 1.50 |

Square Lignumvitæ.

| Trade Word. | Size. | Price. |
|-------------|--|-------------------|
| Cord. | $2\frac{1}{4} \times 3\frac{1}{4} \times 6$ inches..... | per dozen, \$7.50 |
| Cordage. | $2\frac{3}{4} \times 3\frac{3}{4} \times 6\frac{1}{2}$ inches..... | " 9.50 |

COLD CHISELS.



| Trade Word. | Size. | Price. |
|--------------|-------------------------|--------------|
| Reclusive. | $\frac{3}{8}$ inch..... | each, \$0.30 |
| Recognition. | $\frac{1}{2}$ inch..... | " .20 |
| Recognize. | $\frac{5}{8}$ inch..... | " .28 |
| Recoil. | $\frac{3}{4}$ inch..... | " .35 |

TOOLS.

CHISELS.



Socket framing. 8-inch blade.

| Trade Word. | Width. | | Price. |
|--------------|--------------------|------------|--------|
| Convener. | $\frac{3}{4}$ inch |each, | \$1.30 |
| Convenience. | 1 " |" | 1.50 |
| Convening. | $1\frac{1}{2}$ " |" | 1.90 |
| Convent. | 2 " |" | 2.20 |

LINEMAN'S AXE.

Michigan pattern.

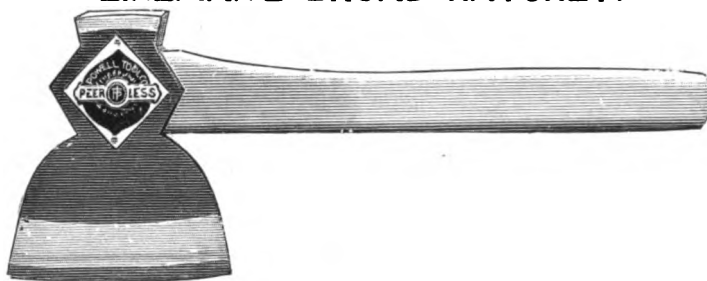
Solid cast steel. Fully warranted. Not handled.

All styles, weight $4\frac{1}{2}$ to $5\frac{1}{2}$ lbs.....each, \$2.00



Michigan pattern.

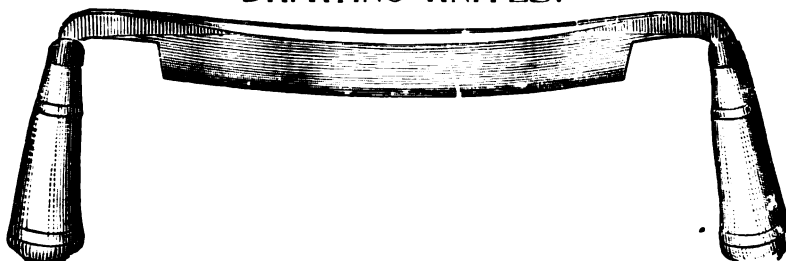
LINEMAN'S BROAD HATCHET.



Broad Hatchet.

| Trade Word. | Size. | | Price. |
|-------------|-------------------------|------------|--------|
| Craved. | $4\frac{1}{2}$ inch cut |each, | \$1.30 |
| Craven. | 5 " |" | 1.40 |
| Craving. | $5\frac{1}{2}$ " |" | 1.60 |
| Crawl. | 6 " |" | 2.00 |

DRAWING KNIVES.



For shaving poles, telegraph pattern. Strong blade. Good quality.

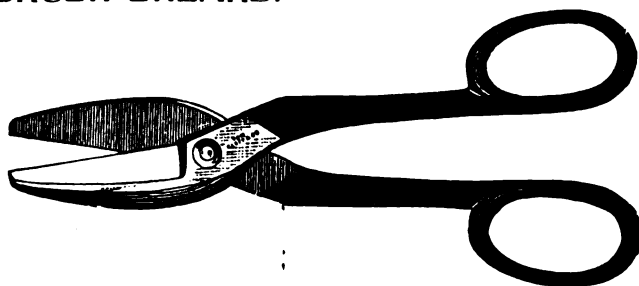
| Trade Word. | Size. | | Price. |
|-------------|---------|------------|--------|
| Recollect. | 10 inch |each, | \$1.50 |
| Recommend. | 12 " |" | 2.00 |

TOOLS.

DYNAMO BRUSH SHEARS.

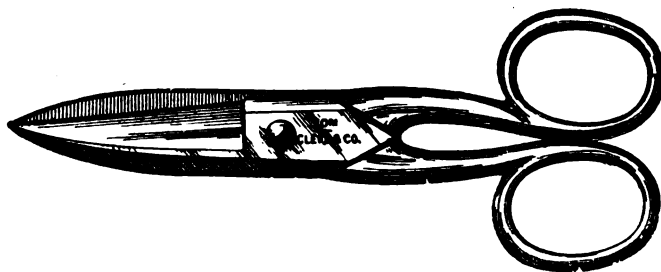
Made with either straight blades, as illustrated, for straight cutting, or curved blades for circular cutting.

| Trade Word. | | Price. |
|-------------|---------------------------------|--------|
| Recitation. | 3 in. straight blades.....each, | \$1.50 |
| Recite. | 3 in. curved blades..... " | 5.00 |



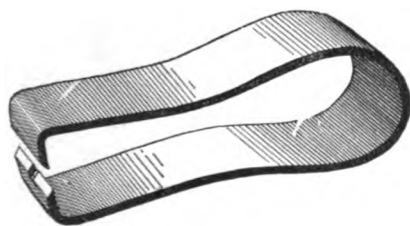
ELECTRICIAN SCISSORS.

Full nickel plated.



| Trade Word. | | Price. |
|-------------|-----------|--------|
| Contraband. | Each..... | \$0.80 |

THE PERRY WIRE PEELER.



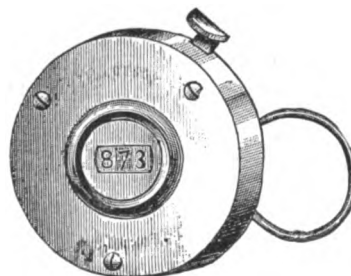
This handy little tool is just adapted to the use of incandescent wire men and bell hangers who have many wire ends to peel. A man can cut the wire readily up to No. 12 in size with a very slight effort, and the peeler should become an invaluable aid where there is work enough to justify its use.

| Trade Word. | Price. |
|-----------------------|--------|
| Contiguous. Each..... | \$0.50 |

POLE COUNTER.

For counting poles, broken insulations, making tallies of materials, etc. Two inches in diameter and weighs about four ounces. Carried in the hand, each pressure records one, which is shown in the dial.

| Trade Word. | Price. |
|-------------------------------|--------------|
| Conduction. Pole counter..... | each, \$4.80 |



TOOLS.

SCREW DRIVERS.

Champion Screw Drivers.



Forged from the toughest steel.

| Trade Word. | Length, 2½ inches | Price. | Trade Word. | Length, 8 inches | Price. |
|-------------|-------------------|--------|-------------|------------------|---------|
| Receiving. |per dozen, | \$3.00 | Recent. |per dozen, | \$ 8.00 |
| Receiver. | " 3 " | " 3.50 | Recently. | " 10 " | " 10.00 |
| Recency. | " 4 " | " 4.25 | Recentness. | " 12 " | " 12.00 |
| Recension. | " 6 " | " 6.00 | | | |

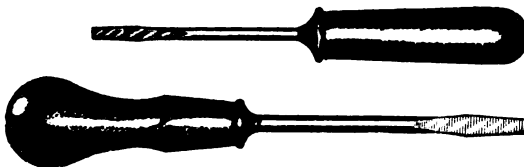
Lock Ferrule Screw Drivers.



Forged from finest tool steel. Blades and handles warranted not to turn in ferrule.

| Trade Word. | Length, 2½ inches | Price. | Trade Word. | Length, 6 inches | Price. |
|-------------|-------------------|--------|-------------|------------------|---------|
| Receptacle. |per dozen, | \$3.00 | Recession. |per dozen, | \$ 6.00 |
| Reception. | " 3½ " | " 3.50 | Gelding | " 8 " | " 8.00 |
| Receptive. | " 4 " | " 4.25 | Gelidity | " 10. " | " 10.00 |
| Recess. | " 5 " | " 5.00 | Gellinotte | " 12 " | " 12.00 |

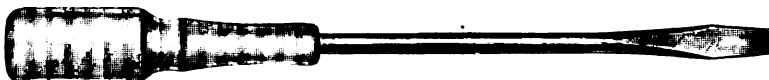
Vulcan Insulated Screw Drivers.



Made with moulded mica insulation. Invaluable where screw drivers are used about lines or machinery carrying high potential. Dimensions are for length of exposed shank.

| Trade Word. | Length, 2½ inches | Price. | Trade Word. | Length, 4 inch | Price. |
|-------------|-------------------|--------|-------------|----------------|--------|
| Nativity. |each, | \$0.90 | Nattily. |each, | 1.20 |
| Natty. | " 3½ " | " 1.00 | Naturalist. | " 6 " | " 2.00 |

Leather Handled Screw Drivers.



These handles are built on the drivers, one layer of leather at a time, and are absolutely inseparable and indestructible. These drivers are made from the highest grade steel and are hand forged and tempered, making them high-class tools, which we fully warrant.

| Trade Word. | Length, 3 inch | Price. | Trade Word. | Length, 8 inch | Price. |
|-------------|-----------------|---------|-------------|-----------------|---------|
| Opium. |per dozen, | \$ 5.60 | Gelvure. |per dozen, | \$12.80 |
| Opponent. | " 4 " | " 6.80 | Recasting. | " 10 " | " 16.00 |
| Opportune. | " 6 " | " 9.80 | Recalled. | " 12 " | " 19.20 |

TOOLS.

THE YANKEE SCREW DRIVERS.

"Yankee" Spiral Ratchet Screw Driver No. 30.

Right and left hand.

Can be used as a rigid screw driver in any part of its length, as well as to push or ratchet screws in or out; this feature is not found in any other tool of its kind. The whole tool is strong and durable, three bits are included with each tool. Extreme length with bit in chuck $13\frac{1}{2}$ inches when closed, $19\frac{1}{4}$ inches when extended.

Trade Word.

Price.

Recipency. Per doz. \$33.00

"Yankee" Ratchet Screw Driver No. 10.

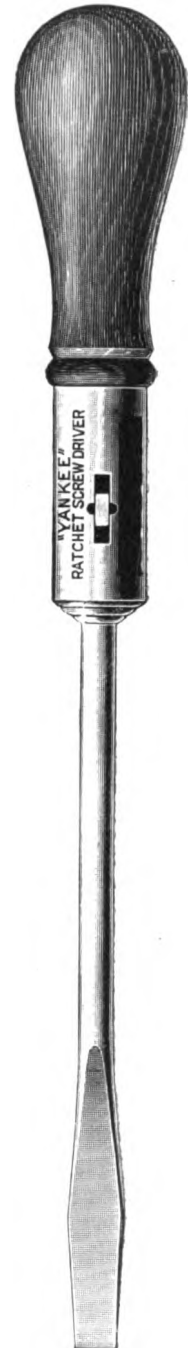
Right and left hand.

The construction of ratchet and pawls is such that neither can bend or break, wear or get out of order, and permits a very compact arrangement, making the tool more convenient in size and shape and of less weight than tools heretofore made. The material and workmanship are of superior quality in every detail. These drivers are strong, durable and handsomely finished.

| Trade Word. | | Price. | |
|--------------|--------------|-----------|---------|
| Recipient. | 2 inch | per doz., | \$ 6.60 |
| Reciprocal. | 4 " | " | 9.10 |
| Reciprocate. | 6 " | " | 11.70 |
| Reciprocity. | 8 " | " | 13.50 |
| Recision. | 10 " | " | 15.75 |
| Recital. | 12 " | " | 17.40 |



Spiral Ratchet,
No. 30.



Ratchet
No. 10.

TOOLS.

LINEMAN'S TORCH.

For alcohol.



| Trade Word. | Price. |
|-----------------------|--------------|
| Connivance. Tin | each, \$0.90 |
| Connive. Brass | " 1.50 |

ALCOHOL BLOW LAMP.



| Trade Word. | Price. |
|------------------------------|--------------|
| Reflection. Small size | each, \$2.50 |
| Reflective. Large " | " 4.20 |

SOLDERING COPPERS.

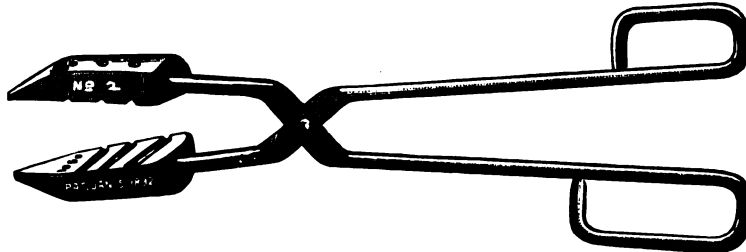
Pointed.



| Trade Word. | Weight per pair, 1½ lbs. | Price. |
|---------------|--------------------------|------------------|
| Conscious. | ..... | per pair, \$0.60 |
| Conscript. | " " " 2 " | " .80 |
| Conscription. | " " " 3 " | " 1.20 |
| Consecrate. | " " " 4 " | " 1.60 |

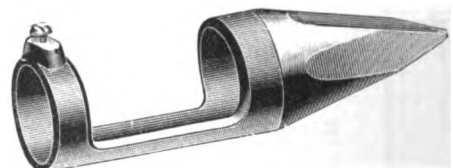
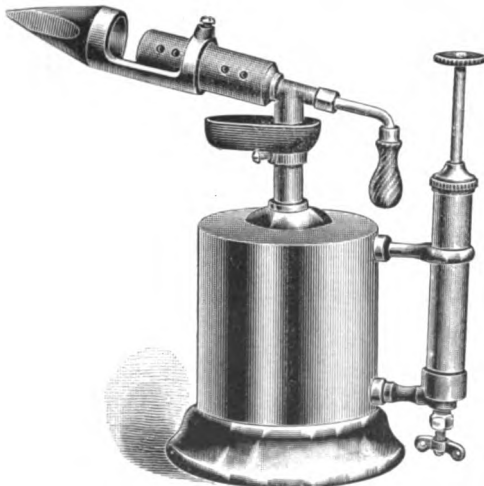
| Trade Word. | Weight per pair, 5 lbs. | Price. |
|---------------|-------------------------|------------------|
| Consecrated. | ..... | per pair, \$2.00 |
| Consecration. | " " " 8 " | " 2.40 |
| Consecutive. | " " " 8 " | " 3.20 |

EXCELSIOR SOLDERING COPPERS.



| Trade Word. | Price. |
|-------------------------|--------------|
| Conjugated. 1 lb | each, \$3.00 |
| Conjugating. 1½ " | " 3.50 |
| Conjurement. 2½ " | " 4.25 |

RITTER SOLDERING COPPER.



Is designed to be attached to any gasoline blow torch as shown. The temperature of the copper is maintained constantly when torch is in operation. Connections can be soldered without injuring the insulation and in places where a flame is objectionable.

| Trade Word. | Price. |
|-----------------------|--------|
| Recalling. Each | \$1.50 |

TOOLS.

THE VULCAN SOLDERING TORCH.

For gasoline or naphtha.

Automatic in action. The handle can be attached to several sides of the body of torch, allowing projection of flame in any direction. One cent's worth of gasoline or naphtha will generate and maintain a heat of 2,000 degrees, delivering the same in a steady blast.



Trade Word.
National. Vulcan torch.....each, \$6.00

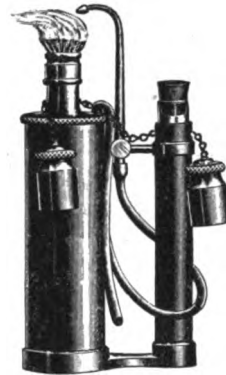
Price.

"WILSON'S" COMBINATION SOLDERING TORCH.

For alcohol.

This torch can be carried in the pocket or tool bag. The handle contains a vial for acid, doing away with carrying an extra acid bottle. The blow pipe is adjustable and the wick large, so that a large or small compact flame can be used at will.

It is made entirely of brass and highly polished.



Trade Word.
National. Wilson's torcheach, \$5.25

Price.

COMBINATION HOT BLAST BLOW TORCH.

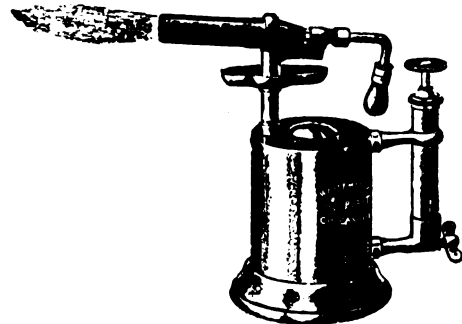
A brazier, soldering iron, heater and blow torch in one tool.



Trade Word.
See. Each..... \$6.00

Price.

ELECTRIC HOT BLAST BLOW TORCH.



A light but powerful torch.

For electricians, linemen, and on work calling for a needle-flame and a hot one, we recommend this torch. Height 8 inches.

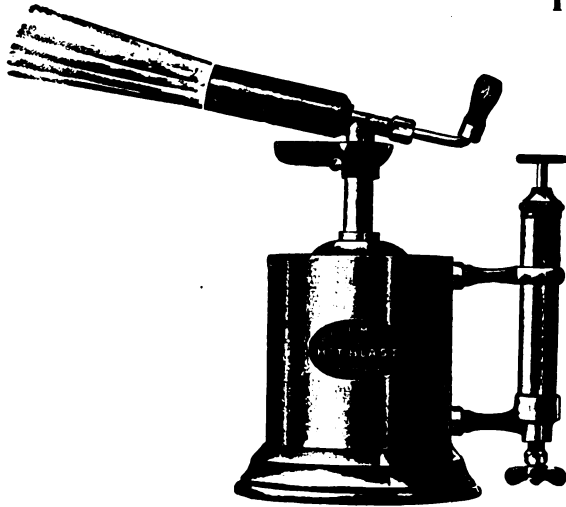
Weight 2 lbs. Capacity 1 pint. Thoroughly tested.

Trade Word.
Sack. Each \$5.00

Price.

TOOLS.

GASOLINE BLOW PIPE.



This combines a complete tool for soldering, brazing, burning paint, melting metals; for heating soldering coppers, frozen pipes, heavy soldered joints, etc.

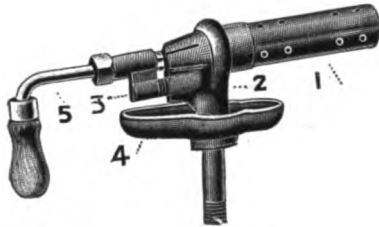
A convenient, durable and reliable tool, adapted for a hundred purposes. Very simple and perfectly safe in operation.

Each torch is tested before leaving the factory and is warranted. This blow pipe exceeds all others for strength, results and general excellence. All parts interchangeable.

| | | |
|-------------|--------------------|--------------|
| Trade Word. | | Price. |
| Connate. | Gasoline Blow Pipe | each, \$5.00 |

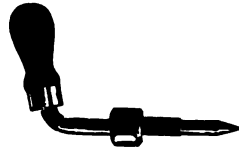
PARTS OF GASOLINE BLOW PIPE.

Burner Complete.



| | |
|---------------------|--------|
| Trade Word. | Price. |
| Harmonic. Each..... | \$2.50 |

Needle Screw.



| | |
|--------------------|--------|
| Trade Word. | Price. |
| Harness. Each..... | \$0.60 |

Burner Shield.



| | |
|----------------------|--------|
| Trade Word. | Price. |
| Harmonize. Each..... | \$0.50 |

Drip Cup.



| | |
|----------------------|--------|
| Trade Word. | Price. |
| Harmonist. Each..... | \$0.30 |

Plug.



| | |
|--------------------|--------|
| Trade Word. | Price. |
| Harping. Each..... | \$0.30 |

Air Pump.



| | |
|-----------------------|--------|
| Trade Word. | Price. |
| Harmonical. Each..... | \$1.00 |

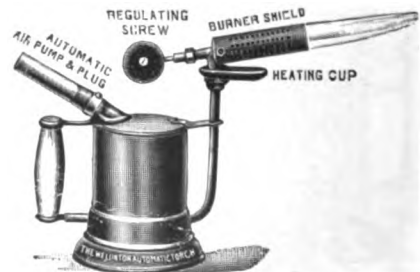
NO. 1 "HELPER" FORGE.



Can be used by linemen and others for melting metal in which to dip connection joints, or for heating soldering irons. It is safe, made to stand hard work, and easily repaired.

| | |
|------------------------------------|--------------|
| Trade Word. | Price. |
| Conjoin. No. 1 "Helper" Forge..... | each, \$9.00 |

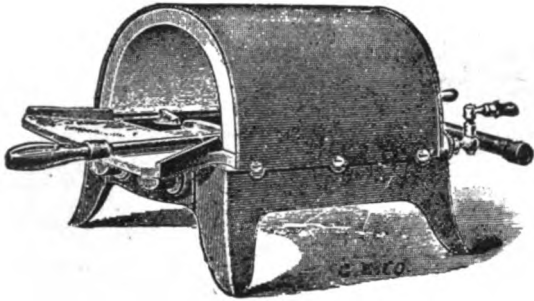
WELLINGTON AUTOMATIC GASOLINE SOLDERING TORCH.



| | |
|----------------------|---------|
| Trade Word. | Price. |
| Refashion. Each..... | \$10.50 |

TOOLS.

GAS STOVE.

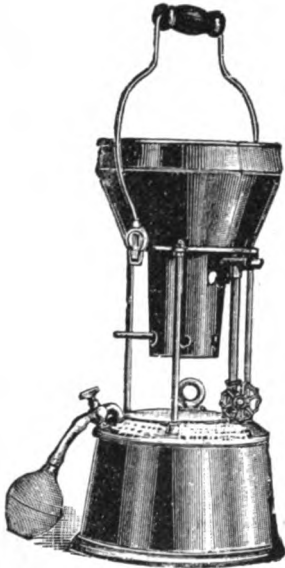


This stove can readily be connected with gas jet by rubber tubing.

Trade Word. Price.
Concord. For 2 irons.....each, \$8.00

EUREKA HOT BLAST FURNACE.

All parts are interchangeable.



Trade Word. Price.
Refer. Each.....\$7.00

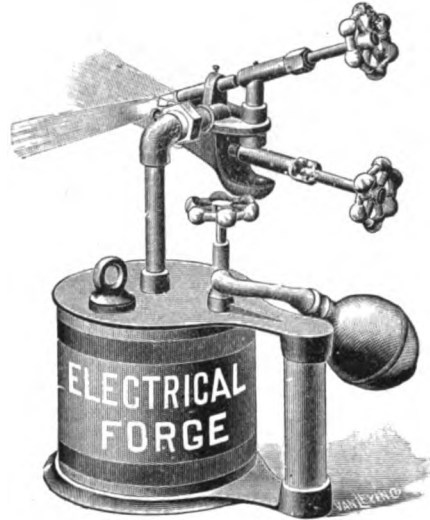
MELTING POT.



Trade Word. Price.
Referring. 5 inchper doz., \$7.20

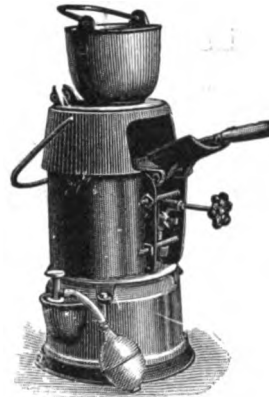
ELECTRICIAN'S TORCH.

Will not blow out in a gale of wind.



Trade Word. Price.
Conjecture. Each.....\$7.00

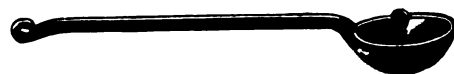
COMBINATION FURNACE AND FIRE POT.



This cut shows that by throwing back the hinged lid a place is provided for the solder pot. It will heat a 6-lb. copper in less than four minutes, and melt 10 lbs. of solder in eight minutes.

Trade Word. Price.
Conform. Including soldering pot.... each, \$11.00

MELTING LADLES.

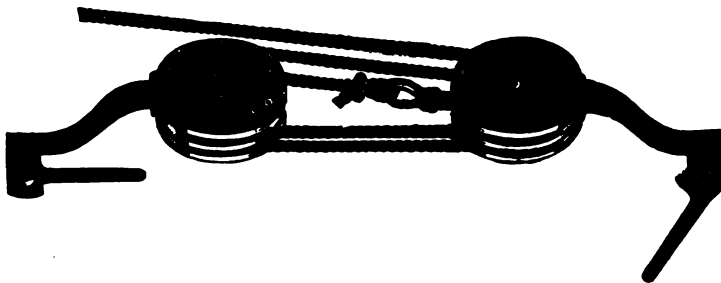


| | | | |
|-------------|-----------------|-----------|---------|
| Trade Word. | | | Price. |
| Referee. | 2 1/2 inch..... | per doz., | \$ 4.80 |
| Reference. | 3 "..... | " | 6.00 |
| Referable. | 4 "..... | " | 8.00 |
| Refine. | 5 "..... | " | 11.00 |

TOOLS.

PULLEY BLOCKS.

Inside iron strapped, galvanized iron sheaves.

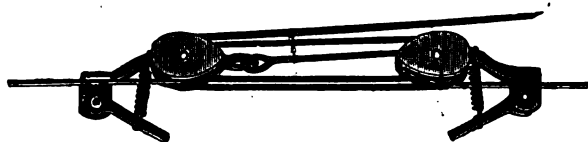


| Trade Word. | | Price. |
|-------------|--|------------------|
| Paragram. | 4 inch blocks, with eccentrics attached 50 feet $\frac{3}{8}$ inch rope, market rates. | per pair, \$6.50 |
| Paragraph. | 5 inch blocks, with eccentrics attached, extra heavy 100 feet $\frac{3}{8}$ inch rope, market rates. | " 9.00 |



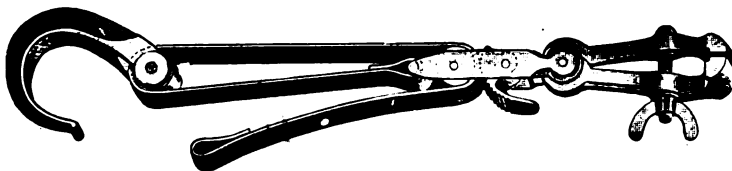
| Trade Word. | | Price |
|-------------|--|------------------|
| Parallax. | 4 inch blocks only, with eye for attaching separate clamp 50 feet $\frac{3}{8}$ inch rope, market rates. | per pair, \$3.30 |
| Paramount. | 5 inch blocks only, extra heavy 100 feet of $\frac{3}{8}$ inch rope, market rates. | " 5.30 |

PULLEY BLOCKS WITH ECCENTRICS ATTACHED.



| Trade Word. | | Price. | Trade Word. | | Price. |
|-------------|----------------------------------|------------------|-------------|----------------------|------------------|
| Gazer. | 2 $\frac{1}{4}$ inch, brass..... | per pair, \$5.50 | Gazette. | Galvanized iron..... | per pair, \$3.75 |

HOWE'S IMPROVED LINE WIRE TOOL.



Among the advantages combined in the *Howe's improved line wire tool* for pulling up and holding line and guy wires may be noted:

Ease of action. The system of rolls enables the lineman to use his strength to the best possible advantage.

Perfect control of the wire. Not confined to a buckle. The grip, which is self-adjusting, will hold in any position at any part of the strap.

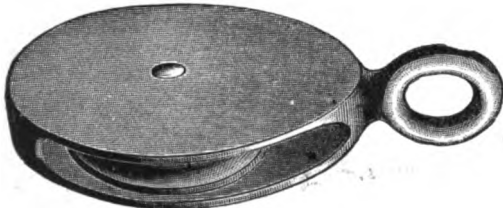
Saving of time and strength. The use of hook and clamp saves one-half the time, and rolls will give four times the power of the old methods.

| Trade Word. | | Price. |
|-------------|---|--------------|
| Conspirant. | Howe's improved line wire tool, with strap, without vise..... | each, \$6 00 |
| Conspirer. | Same with 5 $\frac{1}{2}$ inch vise..... | " 8.00 |

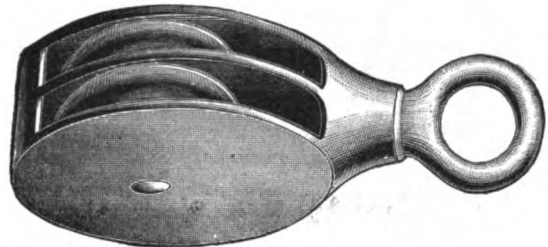
TOOLS.

GALVANIZED IRON PULLEYS.

Regular pattern.



Single, with stiff single eye.



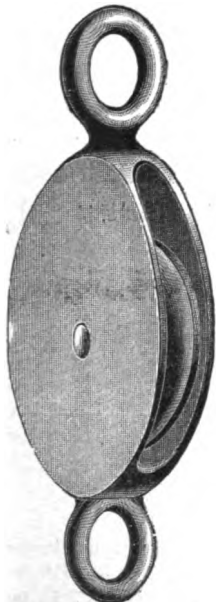
Double, with swivel single eye.

| Trade Word. | Style of Sheave. | Length of Shell. | For Diam. Rope. Inches. | Price per doz. | Trade Word. | Style of Sheave. | Length of Shell. | For Diam. Rope. Inches. | Price per doz. |
|-----------------|------------------|-------------------|-------------------------|----------------|------------------|------------------|-------------------|-------------------------|----------------|
| Caper..... | Single | 1 inch | $\frac{1}{8}$ | \$0.60 | Capsize..... | Single | 1 inch | $\frac{1}{8}$ | \$0.60 |
| Capering..... | Double | 1 " | $\frac{1}{8}$ | .75 | Capsized..... | Double | 1 " | $\frac{1}{8}$ | .75 |
| Capital..... | Single | 1 $\frac{3}{8}$ " | $\frac{1}{8}$ | .65 | Capsizing..... | Single | 1 $\frac{3}{8}$ " | $\frac{1}{8}$ | .65 |
| Capitalist..... | Double | 1 $\frac{3}{8}$ " | $\frac{1}{8}$ | 1.10 | Capstan..... | Double | 1 $\frac{3}{8}$ " | $\frac{1}{8}$ | 1.10 |
| Capitally..... | Single | 1 $\frac{3}{4}$ " | $\frac{1}{4}$ | .90 | Capsular..... | Single | 1 $\frac{3}{4}$ " | $\frac{1}{4}$ | .90 |
| Capitation..... | Double | 1 $\frac{3}{4}$ " | $\frac{1}{4}$ | 1.60 | Capsule..... | Double | 1 $\frac{3}{4}$ " | $\frac{1}{4}$ | 1.60 |
| Capitulate..... | Single | 2 " | $\frac{1}{8}$ | 1.40 | Captain..... | Single | 2 " | $\frac{1}{8}$ | 1.40 |
| Capon..... | Double | 2 " | $\frac{1}{8}$ | 2.25 | Captains..... | Double | 2 " | $\frac{1}{8}$ | 2.25 |
| Caprice..... | Single | 2 $\frac{1}{4}$ " | $\frac{1}{8}$ | 2.00 | Captivate..... | Single | 2 $\frac{1}{4}$ " | $\frac{1}{8}$ | 2.00 |
| Capricious..... | Double | 2 $\frac{1}{4}$ " | $\frac{1}{8}$ | 2.80 | Captivating..... | Double | 2 $\frac{1}{4}$ " | $\frac{1}{8}$ | 2.80 |

GALVANIZED IRON PULLEYS.

Fast eye and becket.

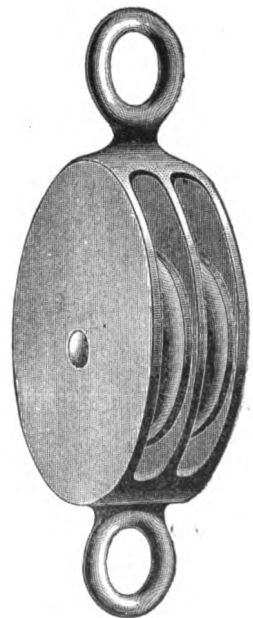
Single, with stiff eye at each end.



| Trade Word. | Length of Shell. | For Diam. Rope. Inches. | Price per doz. |
|----------------|-------------------|-------------------------|----------------|
| Clarify..... | 1 inch | $\frac{1}{8}$ | \$0.60 |
| Clarified..... | 1 $\frac{3}{8}$ " | $\frac{1}{8}$ | .65 |
| Clarifier..... | 1 $\frac{3}{4}$ " | $\frac{1}{4}$ | .90 |
| Clarion..... | 2 " | $\frac{1}{8}$ | 1.40 |
| Clarinet..... | 2 $\frac{1}{4}$ " | $\frac{1}{8}$ | 2.00 |
| Clash..... | 3 " | $\frac{1}{8}$ | 3.00 |
| Clashing..... | 3 $\frac{1}{4}$ " | $\frac{1}{8}$ | 3.50 |

Double, with stiff eye at each end.

| Trade Word. | Length of Shell. | For Diam. Rope. Inches. | Price per doz. |
|----------------|-------------------|-------------------------|----------------|
| Class..... | 1 inch | $\frac{1}{8}$ | \$0.75 |
| Classed..... | 1 $\frac{3}{8}$ " | $\frac{1}{8}$ | 1.10 |
| Classic..... | 1 $\frac{3}{4}$ " | $\frac{1}{4}$ | 1.60 |
| Classical..... | 2 " | $\frac{1}{8}$ | 2.25 |
| Classify..... | 2 $\frac{1}{4}$ " | $\frac{1}{8}$ | 2.80 |
| Clatter..... | 3 " | $\frac{1}{8}$ | 4.00 |
| Clatterer..... | 3 $\frac{1}{4}$ " | $\frac{1}{8}$ | 5.00 |



TOOLS.

GALVANIZED IRON ELECTRIC LIGHT BLOCKS.



Galvanized iron with loose hooks.

Single Iron Sheaves.

| Trade Word. | For Diam. Rope. | Length of Shell. | Price. |
|-------------|-----------------------------|------------------|-------------------------|
| Clause. | $\frac{3}{8}$ inch or less. | 3 inch. | Per dozen \$10.50 |
| Clausure. | $\frac{3}{4}$ " " | $3\frac{1}{2}$ " | " 12.75 |

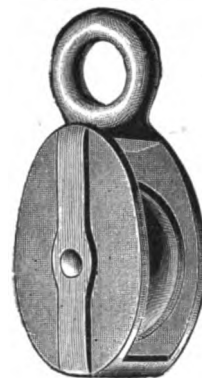
Double Iron Sheaves.

| Trade Word. | For Diam. Rope. | Length of Shell. | Price. |
|-------------|-----------------------------|------------------|-------------------------|
| Clawed. | $\frac{3}{8}$ inch or less. | 3 inch. | Per dozen \$13.50 |
| Clawing. | $\frac{3}{4}$ " " | $3\frac{1}{2}$ " | " 15.50 |

Galvanized iron with loose hooks and stiff eye.

Single Iron Sheaves.

| Trade Word. | For Diam. Rope. | Length of Shell. | Price. |
|-------------|-----------------------------|------------------|-------------------------|
| Clawless. | $\frac{3}{8}$ inch or less. | 3 inch. | Per dozen \$10.50 |
| Clay. | $\frac{3}{4}$ " " | $3\frac{1}{2}$ " | " 12.75 |



Double Iron Sheaves.

| Trade Word. | For Diam. Rope. | Length of Shell. | Price. |
|-------------|-----------------------------|------------------|-------------------------|
| Clayed. | $\frac{3}{8}$ inch or less. | 3 inch. | Per dozen \$13.50 |
| Claying. | $\frac{3}{4}$ " " | $3\frac{1}{2}$ " | " 15.50 |

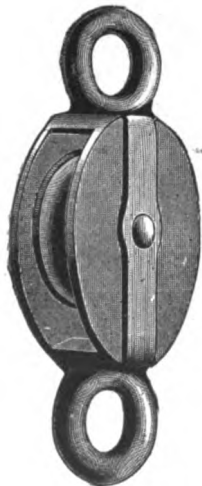
Galvanized iron with single stiff eye.

Single Iron Sheaves.

| Trade Word. | For Diam. Rope. | Length of Shell. | Price. |
|-------------|-----------------------------|------------------|------------------------|
| Clayish. | $\frac{3}{8}$ inch or less. | 3 inch. | Per dozen \$7.00 |
| Claymore. | $\frac{3}{4}$ " " | $3\frac{1}{2}$ " | " 9.00 |

Double Iron Sheaves.

| Trade Word. | For Diam. Rope. | Length of Shell. | Price. |
|-------------|-----------------------------|------------------|-------------------------|
| Clean. | $\frac{3}{8}$ inch or less. | 3 inch. | Per dozen \$10.00 |
| Cleaned. | $\frac{3}{4}$ " " | $3\frac{1}{2}$ " | " 12.00 |



Galvanized iron with double stiff eye.

Single Iron Sheaves.

| Trade Word. | For Diam. Rope. | Length of Shell. | Price. |
|-------------|-----------------------------|------------------|------------------------|
| Cleanly. | $\frac{3}{8}$ inch or less. | 3 inch. | Per dozen \$7.00 |
| Cleanness. | $\frac{3}{4}$ " " | $3\frac{1}{2}$ " | " 9.00 |

Double Iron Sheaves.

| Trade Word. | For Diam. Rope. | Length of Shell. | Price. |
|-------------|-----------------------------|------------------|-------------------------|
| Cleanse. | $\frac{3}{8}$ inch or less. | 3 inch. | Per dozen \$10.00 |
| Cleansed. | $\frac{3}{4}$ " " | $3\frac{1}{2}$ " | " 12.00 |

TOOLS.

IRON STRAPPED WOOD BLOCKS.

With Harcourt's patent straps, iron sheaves and loose hooks.



Single, with becket.



Double, with becket.



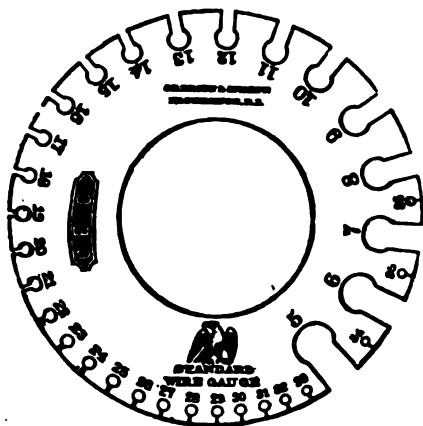
Triple, with becket.

| Trade Word. | Dimensions. | | | | Price. | | |
|------------------|---|---------------------|---------------------------|------------------------|--------------|---------|---------|
| | Size Sheave. Inches. | Mortise. Inches. | For Diam. Rope Inches. | Size Shell. Inches. | Iron Bushed. | | |
| | | | | | Single. | Double. | Triple. |
| Reel..... | $1\frac{3}{4} \times \frac{1}{2} \times \frac{3}{8}$ | $\frac{9}{16}$ | $\frac{3}{8}$ | 3 | \$0.70 | \$1.30 | \$1.75 |
| Reeled..... | $2 \times \frac{1}{2} \times \frac{3}{8}$ | $\frac{9}{16}$ | $\frac{3}{8}$ | $3\frac{1}{2}$ | .75 | 1.45 | 2.00 |
| Reeling..... | $2\frac{1}{4} \times \frac{5}{8} \times \frac{3}{8}$ | $\frac{1}{8}$ | $\frac{1}{2}$ | 4 | .85 | 1.60 | 2.15 |
| Re-elect..... | $3 \times \frac{3}{4} \times \frac{3}{8}$ | $\frac{7}{8}$ | $\frac{5}{8}$ | 5 | .90 | 1.75 | 2.25 |
| Re-elected..... | $3\frac{1}{2} \times 1 \times \frac{1}{2}$ | 1 | $\frac{3}{4}$ | 6 | 1.10 | 2.00 | 2.90 |
| Re-election..... | $4\frac{1}{4} \times 1 \times \frac{1}{2}$ | $1\frac{1}{8}$ | $\frac{7}{8}$ | 7 | 1.30 | 2.40 | 3.50 |
| Re-electing..... | $4\frac{3}{4} \times 1\frac{1}{8} \times \frac{5}{8}$ | $1\frac{1}{4}$ | 1 | 8 | 1.65 | 2.85 | 4.25 |
| Re-embark..... | $5\frac{1}{2} \times 1\frac{1}{8} \times \frac{5}{8}$ | $1\frac{1}{4}$ | 1 | 9 | 1.85 | 3.40 | 4.75 |
| Reeming..... | $6\frac{1}{2} \times 1\frac{1}{4} \times \frac{3}{4}$ | $1\frac{3}{8}$ | $1\frac{1}{8}$ | 10 | 2.75 | 4.50 | 6.25 |
| Re-enact..... | $8 \times 1\frac{3}{8} \times \frac{3}{4}$ | $1\frac{1}{2}$ | $1\frac{1}{4}$ | 12 | 4.45 | 7.50 | 10.65 |

In ordering, specify whether single, double or triple is wanted. These blocks can be furnished without becketts when so ordered.

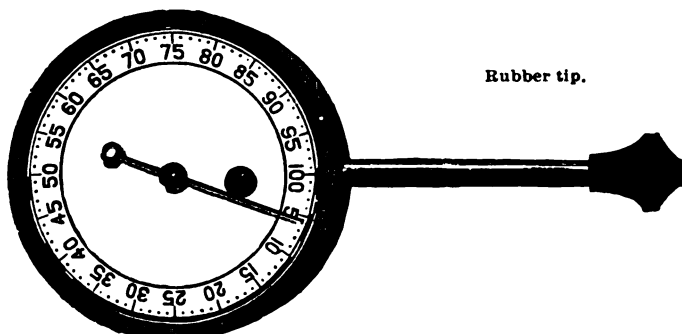
TOOLS.

AMERICAN STANDARD WIRE GAUGE.



| Trade Word. | Price. |
|-----------------------------|--------|
| Emissary. 0 to 36.....each, | \$5.00 |
| Emission. 5 to 36..... | 4.00 |

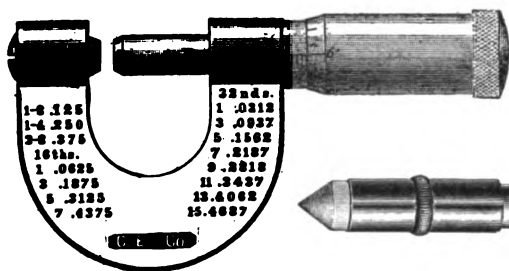
LIGHTNING SPEED INDICATOR.



It registers as high as 1,000 as seen by the cut, which is actual size. The body constitutes the handle. Has a rubber tip on the spindle, a silver plated dial and the face covered with a watch crystal. Will stand over 10 000 rotations per minute. To suit the requirements, we make the spindle so as to give four lengths— $\frac{1}{4}$, 1, 2 and 3 inches. For all practical purposes this is believed to be sufficient; the spindle can, however, be made any desired length for special purposes. In ordering state length of spindle desired.

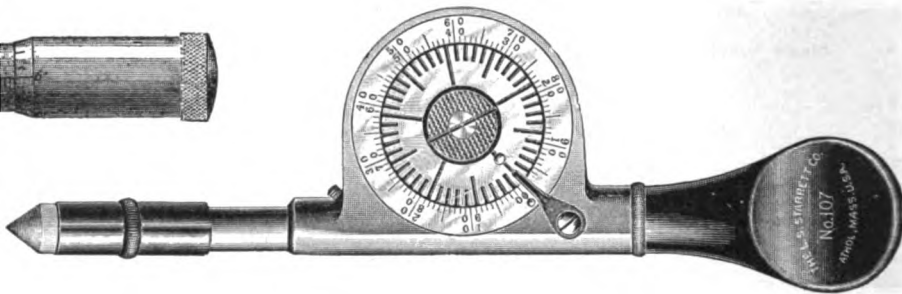
| Trade Word. | Price. |
|---------------------------------|--------|
| Embroider. Speed Indicator..... | \$4.00 |

CALIPER.



| Trade Word. | Price. |
|--|---------|
| Emigrate. Measures from .001 to one inch.....each, | \$10.00 |
| Emigration. In morroco case.....each, | 11.50 |
| Emerging. Measures from .001 to .5 inch.....each, | 9.00 |
| Emerson. In Morroco case.....each, | 10.00 |

STARRETT'S REGISTERING SPEED INDICATOR.



This instrument will register 5,000 revolutions. The large dial is graduated into one hundred lines, each one representing a revolution of the spindle. The small dial has fifty lines cut upon its face, each representing one hundred revolutions of the spindle (or one complete turn of the large dial). The instrument has a hard rubber handle, making a safe insulator when used on electrical machinery. Has our new rubber tips for both pointed and hollow centres.

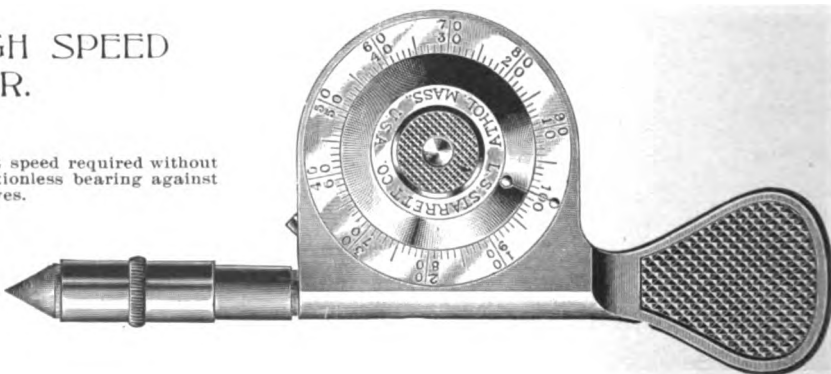
| Trade Word. | Price. |
|---|--------|
| Recommending. In pasteboard box.....each, | \$6.00 |
| Recommitt. In leatherette case..... | 7.00 |

STARRETT'S HIGH SPEED INDICATOR.

No. 104.

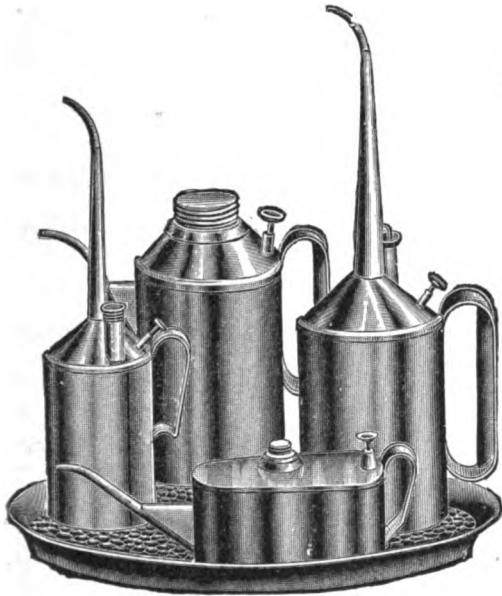
This indicator may be run at highest speed required without heating, and this on account of a frictionless bearing against which the inner end of the spindle revolves.

| Trade Word. | Price. |
|---|--------|
| Recommittal. In pasteboard box.....each, | \$2.00 |
| Recompense. In leatherette case.....each, | 3.00 |



TOOLS.

ENGINEERS' PERFECTION SETS.

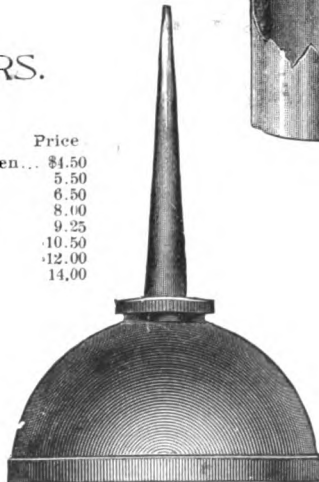


These engineers' sets are handsomely finished, strictly first-class in every particular.

| Trade Word. | No. | | Price. |
|--------------------|------------|--------------------------------------|---------------|
| Sadly. | 501. | 4 pieces, brass.(counting tray)..... | \$ 5 00 |
| Safe. | 502. | 5 " " " " | 6.50 |
| Sag. | 503. | 6 " " " " | 8 00 |
| Sailor. | 504. | 4 " nickel " " | 7.00 |
| Saint. | 505. | 5 " " " " | 9.00 |
| Salmon. | 506. | 6 " " " " | 11.00 |

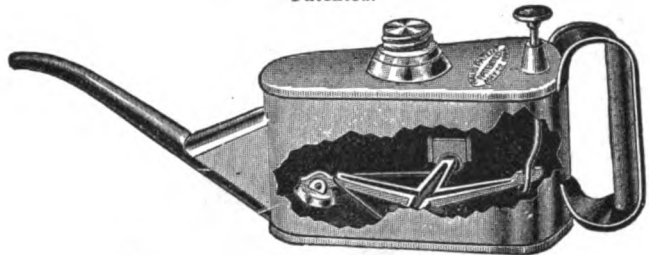
ENGINEERS' OILERS.

| Trade Word. | | Diam. | | Price |
|----------------|--------|-----------|--------------|--------|
| Recorder. | Steel. | 1 1/2 in. | Per dozen... | \$4.50 |
| Recount. | " | 3/8 " | " | 5.50 |
| Recourse. | Brass. | 2 1/4 " | " | 6.50 |
| Recover. | " | 3/8 " | " | 8.00 |
| Rectifiable. | Steel. | 4/4 " | " | 9.25 |
| Rectification. | " | 1 1/4 " | " | 10.50 |
| Rectifier. | Brass. | 4/4 " | " | 12.00 |
| Rectify. | " | 4/4 " | " | 14.00 |



ENGINEERS' PERFECTION HAND OILERS.

Patented.



Tin goods made of IXX charcoal plate.

| Trade Word. | No. | Tin Per Doz. | Brass Per Doz. |
|-------------|-----------|-----------------|-------------------|
| Savah. | 25-1½ pt. | \$8.00 | \$12.00 |
| Scan. | 27-1 " | 9.00 | 13.50 |
| Screen. | 29-1 qt. | 12.00 | 18.00 |
| Scream. | 31-2 " | 18.00 | 25.00 |

Note.—When ordering specify whether tin or brass oilers are wanted.

ENGINEERS' PERFECTION OILERS.

| Trade Word. | No. | Tin Per Doz. | Brass Per Doz. |
|-------------|-----------------------|-----------------|-------------------|
| Sallie. | 34- $\frac{1}{2}$ pt. | \$8.50 | \$12 00 |
| Salt. | 36-1 " | 10.00 | 15.00 |
| Sand. | 38-1 qt. | 12.00 | 18.00 |
| Satan. | 39-2 " | 14.50 | 21.00 |

Tin goods made of IXX charcoal plate.
Length of spouts 6, 8, 10, 12, 14, 18, 24
inches. All spouts, 1½ inches and
over, are made double, giving
them additional strength.

Note.—In ordering specify whether tin or brass oilers are wanted.



ENGINEERS' FILLERS.

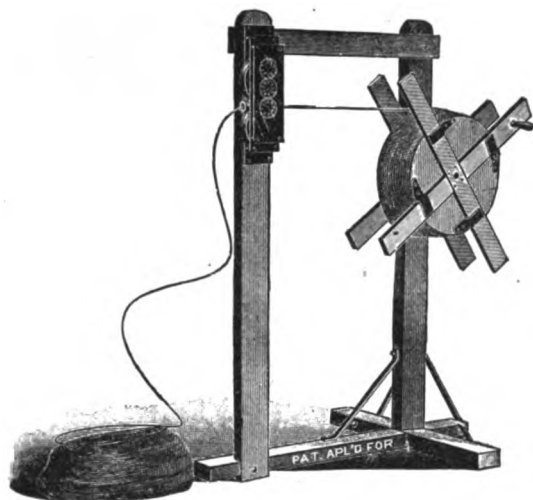


| Trade Word. | Diam. | High. | Per Doz. |
|--------------------|----------------------|------------|--------------|
| Reconsider. Steel, | pint. 4¼ in. | 3½ in. | \$14.00 |
| Reconstruct. " | quart. 5¼ in. | 5 " | 20.00 |
| Reconvey. Brass, | 1 qt. 4¾ " | 4 " | 22.00 |
| Record. | " quart. 5¼ " | 5 " | 30.00 |

TOOLS.

WIRE MEASURING MACHINES.

Wire Reel and Meter.



A most efficient device for measuring and reeling wire.

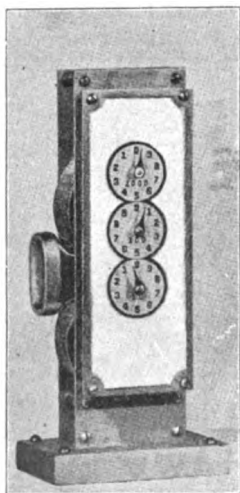
It will save time and money and a short use
will demonstrate its great value.

In the meter the wire passes between two self-adjusting rollers which admit of a wide range and will measure accurately large or small wire. The pointers are movable and are readily adjusted to the zero point. Parties handling wire either as supplies, or doing construction work, cannot afford to be without this reel, as it will pay for itself in a short time.

Trade Word.

Price.

Recumbent.....\$50.00



WIRE METER FOR COUNTER.

This meter is mounted on a neat base, so as to be used on a counter when reel is not needed.

Trade Word.

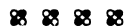
Price.

Screech. Meter without reel.....\$32.00

ELECTRIC LIGHT

.....AND.....

POWER SUPPLIES



Embracing numerous appliances,
useful and necessary in the gen-
eration and distribution of the
electric current for light and
power purposes.

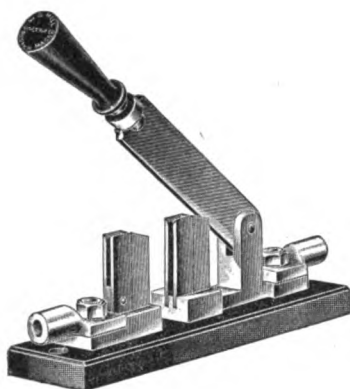
We have included various appli-
ances of standard types and
designs, giving the advantage
of selection for particular appli-
cations.

ELECTRIC LIGHT AND POWER SUPPLIES.

DOUBLE BREAK "ALL-COPPER" HILL KNIFE SWITCHES.

Single Pole, Single Throw, Slate Base.

In ordering state after trade word, with fuse or without fuse, as desired.



UNPOLISHED.

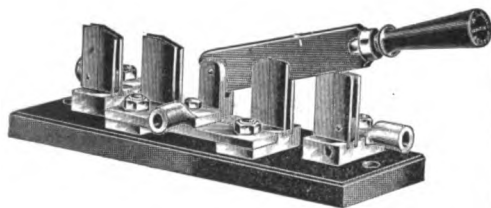
| No. | Trade Word. | Capacity Amperes. | Price Without Fuse. | Price With Fuse. |
|-----|------------------|----------------------|------------------------|---------------------|
| 331 | Filthily | 15 | \$1.30 | \$1.60 |
| 332 | Filthiness | 25 | 2.25 | 2.80 |
| 333 | Filthy | 50 | 2.60 | 3.40 |
| 334 | Filtrate | 75 | 3.40 | 4.20 |
| 335 | Filtration | 100 | 4.30 | 5.30 |
| 336 | Fimbricate | 200 | 6.00 | 7.25 |
| 337 | Fin | 300 | 7.50 | 9.00 |
| 338 | Finable | 400 | 9.50 | 11.50 |
| 339 | Final | 500 | 11.00 | 13.50 |
| 340 | Finally | 600 | 12.50 | 15.50 |
| 341 | Finance | 800 | 17.50 | 22.00 |
| 342 | Financial | 1000 | 22.50 | 27.50 |

POLISHED.

| | | | | |
|-----|-----------------|------|--------|--------|
| 343 | Financier | 15 | \$1.55 | \$1.90 |
| 344 | Finch | 25 | 2.70 | 3.40 |
| 345 | Find | 50 | 3.15 | 4.00 |
| 346 | Finder | 75 | 4.05 | 5.00 |
| 347 | Finding | 100 | 5.20 | 6.30 |
| 348 | Fine | 200 | 7.50 | 9.00 |
| 349 | Fined | 300 | 9.50 | 11.50 |
| 350 | Fining | 400 | 12.00 | 14.75 |
| 351 | Finely | 500 | 14.00 | 17.50 |
| 352 | Fineness | 600 | 16.25 | 20.25 |
| 353 | Finery | 800 | 20.00 | 25.25 |
| 354 | Finesse | 1000 | 28.50 | 35.50 |

Single Pole, Double Throw, Slate Base.

In ordering state after trade word, with fuse or without fuse, as desired.



UNPOLISHED.

| No. | Trade Word. | Capacity Amperes. | Price Without Fuse. | Price With Fuse. |
|-----|-----------------|----------------------|------------------------|---------------------|
| 379 | Finger | 15 | \$2.00 | \$2.40 |
| 380 | Finish | 25 | 2.95 | 3.60 |
| 382 | Finished | 50 | 3.60 | 4.50 |
| 383 | Finishing | 75 | 4.50 | 5.65 |
| 384 | Finishes | 100 | 5.65 | 7.00 |
| 385 | Finite | 200 | 8.00 | 10.00 |
| 386 | Finitely | 300 | 10.00 | 12.25 |
| 387 | Finny | 400 | 12.75 | 16.00 |
| 388 | Fintoed | 500 | 14.75 | 18.75 |
| 389 | Fire | 600 | 16.75 | 21.50 |
| 390 | Firearm | 800 | 23.25 | 29.00 |
| 391 | Fireboard | 1000 | 30.00 | 38.00 |

POLISHED.

| | | | | |
|-----|-----------------|------|--------|--------|
| 392 | Firebrand | 15 | \$2.40 | \$2.90 |
| 393 | Firedamp | 25 | 3.60 | 4.50 |
| 394 | Fireeater | 50 | 4.35 | 5.40 |
| 395 | Firefly | 75 | 5.40 | 6.75 |
| 396 | Firelock | 100 | 6.75 | 8.45 |
| 397 | Fireman | 200 | 10.00 | 12.25 |
| 398 | Firenew | 300 | 12.75 | 16.00 |
| 399 | Fireplace | 400 | 16.00 | 20.00 |
| 400 | Fireproof | 500 | 18.75 | 23.50 |
| 401 | Fireship | 600 | 21.75 | 27.00 |
| 402 | Fireside | 800 | 26.75 | 33.50 |
| 403 | Firewood | 1000 | 38.00 | 41.00 |

Sizes above 500 ampere are made up of two or more knives connected in parallel. 75 ampere and under have wire hole and set screw. 110 ampere and over have wire terminals.

Front connection, mounted switches, always understood unless otherwise specified. All switches are mounted on black polished slate; 10 per cent. extra for marble.

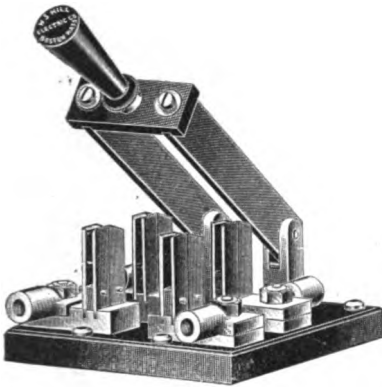
250 volt switches will always be sent unless otherwise ordered. 500 and 1000 volt switches are 10 per cent. extra. Back connection switches furnished at same price as front connection. Data sheets showing all dimensions necessary to drill switchboard for back connection switches sent on application.

ELECTRIC LIGHT AND POWER SUPPLIES.

DOUBLE BREAK "ALL-COPPER" HILL KNIFE SWITCHES.

Double Pole, Single Throw, Slate Base.

In ordering state after trade word, with fuse or without fuse, as desired.

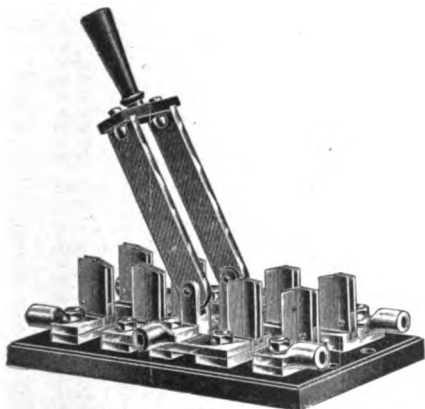


| UNPOLISHED. | | | | |
|-------------|------------------|----------------------|------------------------|---------------------|
| No. | Trade Word. | Capacity Amperes. | Price Without Fuse. | Price With Fuse. |
| 428 | Firkin..... | 15 | \$ 2.00 | \$ 2.40 |
| 429 | Firm..... | 25 | 4.50 | 5.65 |
| 430 | Firmament..... | 50 | 5.40 | 6.75 |
| 431 | Firmamental..... | 75 | 6.75 | 8.40 |
| 432 | Firmly..... | 100 | 8.75 | 10.80 |
| 433 | Firmness..... | 200 | 12.00 | 14.50 |
| 434 | Firattling..... | 300 | 15.00 | 18.00 |
| 435 | Firstly..... | 400 | 19.00 | 23.00 |
| 436 | Firstrate..... | 500 | 21.00 | 27.00 |
| 437 | Fiscal..... | 600 | 25.00 | 31.00 |
| 438 | Fish..... | 800 | 35.00 | 44.00 |
| 439 | Fished..... | 1000 | 43.00 | 55.00 |

| POLISHED. | | | | |
|-----------|-----------------|----------------------|------------------------|---------------------|
| No. | Trade Word. | Capacity Amperes. | Price Without Fuse. | Price With Fuse. |
| 440 | Fishing..... | 15 | \$ 2.40 | \$ 2.90 |
| 441 | Fisher..... | 25 | 5.40 | 6.75 |
| 442 | Fisherman..... | 50 | 6.30 | 8.00 |
| 443 | Fishery..... | 75 | 8.10 | 9.90 |
| 444 | Fish-hook..... | 100 | 10.40 | 12.80 |
| 445 | Fishiness..... | 200 | 15.00 | 18.00 |
| 446 | Fishmonger..... | 300 | 19.00 | 23.00 |
| 447 | Fishy..... | 400 | 24.00 | 29.50 |
| 448 | Fissile..... | 500 | 28.00 | 35.00 |
| 449 | Fissility..... | 600 | 32.00 | 40.50 |
| 450 | Fission..... | 800 | 40.00 | 50.50 |
| 451 | Fissure..... | 1000 | 57.00 | 71.00 |

Double Pole, Double Throw, Slate Base.

In ordering state after trade word, with fuse or without fuse, as desired.



| UNPOLISHED. | | | | |
|-------------|------------------|----------------------|------------------------|---------------------|
| No. | Trade Word. | Capacity Amperes. | Price Without Fuse. | Price With Fuse. |
| 476 | Fist..... | 15 | \$ 3.00 | \$ 3.60 |
| 477 | Flastic..... | 25 | 5.85 | 7.20 |
| 478 | Flasticuffs..... | 50 | 7.20 | 9.00 |
| 479 | Fistula..... | 75 | 9.00 | 11.30 |
| 480 | Fistular..... | 100 | 11.30 | 14.00 |
| 481 | Fistulous..... | 200 | 16.00 | 20.00 |
| 482 | Fistulate..... | 300 | 20.00 | 24.50 |
| 483 | Fit..... | 400 | 25.50 | 32.00 |
| 484 | Fitted..... | 500 | 29.50 | 37.50 |
| 485 | Fitting..... | 600 | 33.50 | 43.00 |
| 486 | Fitch..... | 800 | 46.50 | 58.00 |
| 487 | Fitful..... | 1000 | 61.00 | 76.50 |

| POLISHED. | | | | |
|-----------|-----------------|----------------------|------------------------|---------------------|
| No. | Trade Word. | Capacity Amperes. | Price Without Fuse. | Price With Fuse. |
| 488 | Fitly..... | 15 | \$ 3.60 | \$ 4.30 |
| 489 | Fitness..... | 25 | 7.20 | 9.00 |
| 490 | Fitting..... | 50 | 8.55 | 10.20 |
| 491 | Fix..... | 75 | 10.80 | 13.50 |
| 492 | Fixed..... | 100 | 13.75 | 17.00 |
| 493 | Fixing..... | 200 | 20.00 | 24.50 |
| 494 | Fixable..... | 300 | 25.50 | 32.00 |
| 495 | Fixation..... | 400 | 32.00 | 40.00 |
| 496 | Fixedness..... | 500 | 37.75 | 47.00 |
| 497 | Fixity..... | 600 | 43.50 | 54.00 |
| 498 | Fizzle..... | 800 | 53.50 | 67.00 |
| 499 | Flabbiness..... | 1000 | 77.00 | 96.50 |

Sizes above 500 ampere are made up of two or more knives connected in parallel. 75 ampere and under have wire hole and set screw. 100 ampere and over have wire terminals.

Front connection, mounted switches, always understood unless otherwise specified. All switches are mounted on black polished slate; 10 per cent. extra for marble.

250 volt switches will always be sent unless otherwise ordered. 500 and 1000 volt switches are 10 per cent. extra.

Back connection switches furnished at same price as front connection. Data sheets showing all dimensions necessary to drill switchboard for back connection switches sent on application.

ELECTRIC LIGHT AND POWER SUPPLIES.

DOUBLE BREAK "ALL COPPER" HILL KNIFE SWITCHES.

Triple Pole, Single Throw, Slate Base.

In ordering state after trade word, with fuse or without fuse, as desired.

UNPOLISHED.



| Number. | Trade Word. | Capacity Ampere. | Price without Fuse. | Price with Fuse. |
|---------|-----------------|---------------------|------------------------|---------------------|
| 523 | Flabby..... | 15 | \$ 3.00 | \$ 3.60 |
| 524 | Flacid..... | 25 | 6.30 | 8.40 |
| 525 | Flacidness..... | 50 | 8.10 | 10.15 |
| 526 | Flag..... | 75 | 9.90 | 11.70 |
| 527 | Flagellate..... | 100 | 12.75 | 16.00 |
| 528 | Flagiolet..... | 200 | 18.00 | 21.75 |
| 529 | Flagging..... | 300 | 22.50 | 27.00 |
| 530 | Flaggy..... | 400 | 28.50 | 34.50 |
| 531 | Flagitious..... | 500 | 33.00 | 40.50 |
| 532 | Flagion..... | 600 | 37.50 | 46.50 |
| 533 | Flagrancy..... | 800 | 52.50 | 66.00 |
| 534 | Flagrant..... | 1000 | 68.00 | 83.10 |

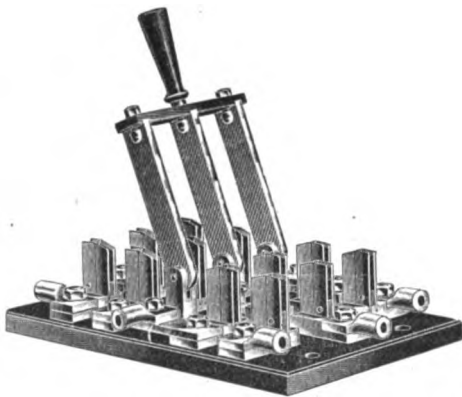
POLISHED.

| | | | | |
|-----|-----------------|------|---------|---------|
| 535 | Flagrantly..... | 15 | \$ 3.60 | \$ 4.30 |
| 536 | Flagship..... | 25 | 8.10 | 10.15 |
| 537 | Flagstaff..... | 50 | 9.50 | 11.90 |
| 538 | Flagstone..... | 75 | 12.25 | 14.90 |
| 539 | Flail..... | 100 | 15.50 | 19.00 |
| 540 | Flake..... | 200 | 22.50 | 27.00 |
| 541 | Flaker..... | 300 | 28.50 | 34.50 |
| 542 | Flaking..... | 400 | 36.10 | 44.25 |
| 543 | Flaky..... | 500 | 42.25 | 52.50 |
| 544 | Flambeau..... | 600 | 48.50 | 60.75 |
| 545 | Flame..... | 800 | 61.10 | 75.75 |
| 546 | Flamingo..... | 1000 | 86.50 | 107.00 |

Triple Pole, Double Throw, Slate Base.

In ordering state after trade word, with fuse or without fuse, as desired.

UNPOLISHED.



| Number. | Trade Word. | Capacity Ampere. | Price without Fuse. | Price with Fuse. |
|---------|---------------|---------------------|------------------------|---------------------|
| 571 | Flamy..... | 15 | \$ 4.50 | \$ 5.40 |
| 572 | Flange..... | 25 | 9.00 | 11.00 |
| 573 | Flank..... | 50 | 10.80 | 13.50 |
| 574 | Flanked..... | 75 | 13.50 | 17.00 |
| 575 | Flanking..... | 100 | 17.25 | 21.50 |
| 576 | Flannel..... | 200 | 24.00 | 30.00 |
| 577 | Flap..... | 300 | 30.10 | 37.50 |
| 578 | Flapped..... | 400 | 38.00 | 47.50 |
| 579 | Flapping..... | 500 | 44.00 | 55.00 |
| 580 | Flapjack..... | 600 | 50.00 | 62.50 |
| 581 | Flare..... | 800 | 70.00 | 87.50 |
| 582 | Flash..... | 1000 | 91.00 | 113.00 |

POLISHED.

| | | | | |
|-----|---------------|------|---------|---------|
| 583 | Flashed..... | 15 | \$ 5.40 | \$ 6.50 |
| 584 | Flashing..... | 25 | 10.80 | 13.50 |
| 585 | Flashy..... | 50 | 12.60 | 15.20 |
| 586 | Flask..... | 75 | 16.20 | 20.30 |
| 587 | Flat..... | 100 | 21.00 | 26.00 |
| 588 | Flatter..... | 200 | 30.00 | 37.50 |
| 589 | Flattest..... | 300 | 38.00 | 47.50 |
| 590 | Flatiron..... | 400 | 48.00 | 60.00 |
| 591 | Flatly..... | 500 | 56.50 | 71.00 |
| 592 | Flatness..... | 600 | 65.00 | 82.00 |
| 593 | Flatter..... | 800 | 80.00 | 100.00 |
| 594 | Flatten..... | 1000 | 116.00 | 145.10 |

Sizes above 500 ampere are made up of two or more knives connected in parallel. 75 ampere and under have wire hole and set screw. 100 ampere and over have wire terminals.

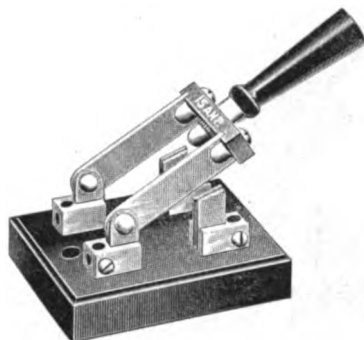
Front connection, mounted switches, always understood unless otherwise specified. All switches are mounted on black polished slate; 10 per cent. extra for marble.

250 volt switches will always be sent unless otherwise ordered. 500 and 1000 volt switches are 10 per cent. extra.

Back connection switches furnished at same price as front connection. Data sheets showing all dimensions necessary to drill switchboard for back connection switches sent on application.

ELECTRIC LIGHT AND POWER SUPPLIES.

SINGLE BREAK "ALL COPPER" HILL KNIFE SWITCHES.



Made in bright finish only, i. e. ground smooth and lacquered. Fibre yokes and hard rubber handles.

Single Throw without Fuse.

| Single Pole. | | | | Double Pole. | | | Three Pole. | | |
|--------------|---------------|----------------------|--------|--------------|----------------|--------|-------------|--------------|--------|
| No. | Trade Word. | Capacity Amperes. | Price. | No. | Trade Word. | Price. | No. | Trade Word. | Price. |
| 619 | Feebleness... | 15 | \$0.65 | 631 | Feldspar..... | \$1.00 | 643 | Felt..... | \$1.50 |
| 620 | Feebly..... | 25 | 1.50 | 632 | Felicitate.... | 1.85 | 644 | Female..... | 3.40 |
| 621 | Feed..... | 50 | 1.85 | 633 | Felicitous.... | 2.75 | 645 | Feminine.... | 4.15 |
| 622 | Feeder..... | 75 | 2.15 | 634 | Felicity..... | 3.25 | 646 | Femoral.... | 4.90 |
| 623 | Feeding..... | 100 | 2.50 | 635 | Feline..... | 3.75 | 647 | Fence..... | 5.65 |
| 624 | Feel..... | 200 | 4.00 | 636 | Fellow..... | 6.00 | 648 | Fencible.... | 8.00 |
| 625 | Feeler..... | 300 | 4.75 | 637 | Fellowship.... | 7.50 | 649 | Fencing..... | 11.25 |
| 626 | Feeling.... | 400 | 6.30 | 638 | Felly..... | 9.50 | 650 | Fend..... | 14.25 |
| 627 | Feelingly.... | 500 | 7.00 | 639 | Felodese.... | 10.50 | 651 | Fender..... | 15.75 |
| 628 | Feet..... | 600 | 8.10 | 640 | Felon..... | 12.15 | 652 | Fending..... | 18.25 |
| 629 | Feint..... | 800 | 11.70 | 641 | Felonious.... | 17.50 | 653 | Fennel..... | 26.25 |
| 630 | Feinting..... | 1000 | 14.30 | 642 | Felony..... | 21.50 | 654 | Fenny..... | 32.25 |

Single Throw with Fuse.

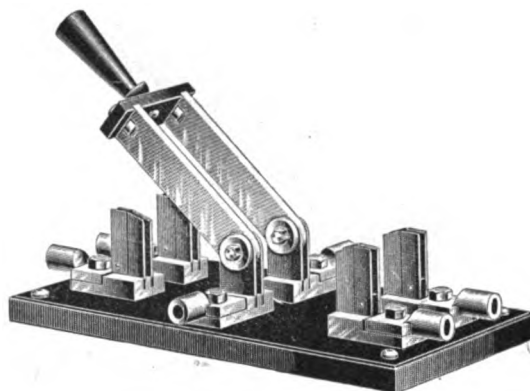
| Single Pole. | | | | Double Pole. | | | Three Pole. | | |
|--------------|----------------|----------------------|--------|--------------|----------------|--------|-------------|---------------|--------|
| No. | Trade Word. | Capacity Amperes. | Price. | No. | Trade Word. | Price. | No. | Trade Word. | Price. |
| 655 | Feoff..... | 15 | \$0.80 | 667 | Ferrule..... | \$1.20 | 679 | Festal..... | \$1.80 |
| 656 | Ferial..... | 25 | 1.80 | 668 | Ferry..... | 2.70 | 680 | Fester..... | 4.10 |
| 657 | Ferine..... | 50 | 2.20 | 669 | Fertile..... | 3.30 | 681 | Festive..... | 5.00 |
| 658 | Ferment..... | 75 | 2.60 | 670 | Fertility..... | 3.90 | 682 | Festivity.... | 5.90 |
| 659 | Fern..... | 100 | 3.00 | 671 | Fertilize.... | 4.50 | 683 | Festoon..... | 6.80 |
| 660 | Ferocious.... | 200 | 4.85 | 672 | Ferule..... | 7.25 | 684 | Festal..... | 10.85 |
| 661 | Ferocity..... | 300 | 6.00 | 673 | Fervency.... | 9.00 | 685 | Fetch..... | 13.50 |
| 662 | Ferrous..... | 400 | 7.70 | 674 | Fervent..... | 11.50 | 686 | Fete..... | 17.25 |
| 663 | Ferret..... | 500 | 9.00 | 675 | Fervently.... | 13.50 | 687 | Fetish..... | 20.25 |
| 664 | Ferriage..... | 600 | 10.30 | 676 | Fervid..... | 15.50 | 688 | Fetishism.... | 23.25 |
| 665 | Ferrotypes.... | 800 | 14.75 | 677 | Fervor..... | 22.00 | 689 | Fetid..... | 33.00 |
| 666 | Ferruginous.. | 1000 | 18.50 | 678 | Fescue..... | 27.50 | 690 | Fettock.... | 41.25 |

Sizes 500 Ampere and above are made up of two knives connected in parallel. Sizes 200 Ampere and over have wire terminal and set nut to take up wear in hinge joint. 100 Ampere and under have wire hole and set screw.

Front connection, mounted switches, always understood unless otherwise specified. Data sheets of these switches, showing dimensions of back connection switches sent on application.

ELECTRIC LIGHT AND POWER SUPPLIES.

SINGLE BREAK "ALL COPPER" HILL KNIFE SWITCHES.



Made in bright finish only, i. e. ground smooth and lacquered. Fibre yokes and hard rubber handles.

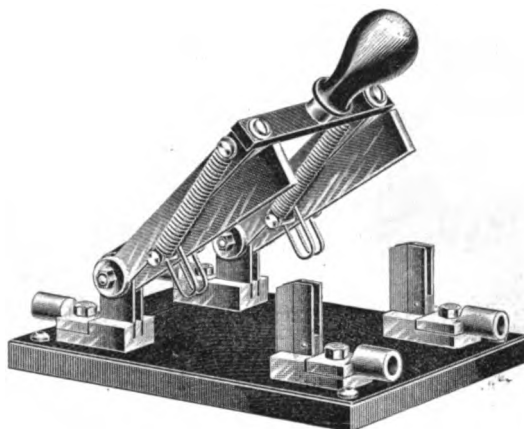
Double Throw without Fuse.

| Single Pole. | | | | Double Pole. | | | Three Pole. | | |
|--------------|--------------------|----------------------|--------|--------------|------------------|--------|-------------|------------------|--------|
| No. | Trade Word. | Capacity Amperes. | Price. | No. | Trade Word. | Price. | No. | Trade Word. | Price. |
| 691 | Fetor. | 15 | \$1 00 | 703 | Fewness. | \$1.50 | 715 | Fiddle. | \$2.25 |
| 692 | Fetter. | 25 | 2.25 | 704 | Fez. | 3.40 | 716 | Fidelity. | 5.10 |
| 693 | Fetus. | 50 | 2 75 | 705 | Fiat. | 4.15 | 717 | Fidget. | 6.25 |
| 694 | Feud. | 75 | 3.25 | 706 | Fib. | 4.90 | 718 | File. | 7.35 |
| 695 | Feudal. | 100 | 3.75 | 707 | Fibre. | 5.65 | 719 | Field. | 8.85 |
| 696 | Feudalism. | 200 | 5 30 | 708 | Fibril. | 8.00 | 720 | Fieldpiece. | 12.00 |
| 697 | Feudality. | 300 | 6.60 | 709 | Fibrine. | 10 00 | 721 | Fiend. | 15.00 |
| 698 | Feudatory. | 400 | 8.50 | 710 | Fibrous. | 12.75 | 722 | Fiendish. | 19.25 |
| 699 | Fever. | 500 | 9.75 | 711 | Fickle. | 14.75 | 723 | Fierce. | 22.25 |
| 700 | Feverish. | 600 | 11.15 | 712 | Fickleness. | 16.75 | 724 | Fiercely. | 25 25 |
| 701 | Feverishness. | 800 | 15.25 | 713 | Fiction. | 23 25 | 725 | Fierceness. | 35.00 |
| 702 | Few. | 1000 | 20.05 | 714 | Fictitious. | 30.50 | 726 | Fiery. | 46.00 |

Double Throw with Fuse.

| Single Pole. | | | | Double Pole. | | | Three Pole. | | |
|--------------|------------------|----------------------|--------|--------------|------------------|--------|-------------|----------------|--------|
| No. | Trade Word. | Capacity Amperes. | Price. | No. | Trade Word. | Price. | No. | Trade Word. | Price. |
| 727 | Fife. | 15 | \$1 20 | 739 | Filament. | \$1.80 | 751 | Filigree. | \$2.70 |
| 728 | Fifer. | 25 | 2.70 | 740 | Filature. | 4 05 | 752 | Fill. | 6 15 |
| 729 | Fight. | 50 | 3.30 | 741 | Filbert. | 4.95 | 753 | Filled. | 7 50 |
| 730 | Fighter. | 75 | 3 90 | 742 | Filch. | 5.85 | 754 | Filling. | 8.85 |
| 731 | Fighting. | 100 | 4.50 | 743 | Filching. | 6.75 | 755 | Fillet. | 10.25 |
| 732 | Figment. | 200 | 6.60 | 744 | File. | 10 00 | 756 | Fillibeg. | 15.00 |
| 733 | Figurable. | 300 | 8.15 | 745 | Filed. | 12.25 | 757 | Filly. | 18.40 |
| 734 | Figurate. | 400 | 10 65 | 746 | Filing. | 16.00 | 758 | Film. | 24 00 |
| 735 | Figuration. | 500 | 12.50 | 747 | Filial. | 18.75 | 759 | Filmy. | 27.25 |
| 736 | Figurative. | 600 | 14.30 | 748 | Filiation. | 21.50 | 760 | Filose. | 32.50 |
| 737 | Figure. | 800 | 19.30 | 749 | Filibuster. | 29 00 | 761 | Filter. | 44.00 |
| 738 | Filaceous. | 1000 | 25.50 | 750 | Filiform. | 38.25 | 762 | Filth. | 58.25 |

Sizes 500 ampere and above are made up of two knives connected in parallel. Sizes 200 ampere and over have wire terminals and set nut to take up wear in hinge joint. 100 ampere and under have wire hole and set screw. Front connection, mounted switches, always understood unless otherwise specified. Data sheets of these switches, showing dimensions of back connection switches sent on application.

ELECTRIC LIGHT AND POWER SUPPLIES.**HILL QUICK BREAK SWITCHES.**

Made in bright finish only, i. e., ground smooth and lacquered, has red fibre yoke and hard rubber handle.

Single Throw without Fuse.

| Single Pole. | | | | Double Pole. | | | Three Pole. | | |
|--------------|-----------------|-------------------|---------|--------------|-----------------|---------|-------------|----------------|---------|
| No. | Trade Word. | Capacity Amperes. | Price. | No. | Trade Word. | Price. | No. | Trade Word. | Price. |
| 763 | Foiling | 25 | | 774 | Follicle | | 785 | Fond | |
| 764 | Foist | 50 | \$ 3.70 | 775 | Follow | \$ 5.50 | 786 | Fondle | \$ 8.30 |
| 765 | Foisting | 75 | 4.30 | 776 | Followed | 6.50 | 787 | Fondled | 9.80 |
| 766 | Fold | 100 | 5.00 | 777 | Following | 7.50 | 788 | Fondling | 11.30 |
| 767 | Folded | 200 | 8.00 | 778 | Follower | 12.00 | 789 | Fondly | 16.00 |
| 768 | Folding | 300 | 9.50 | 779 | Folly | 15.00 | 790 | Fondness | 22.50 |
| 769 | Folder | 400 | 12.60 | 780 | Foment | 19.00 | 791 | Font | 28.50 |
| 770 | Foliage | 500 | 14.00 | 781 | Fomented | 21.00 | 792 | Fontal | 31.50 |
| 771 | Foliate | 600 | 16.20 | 782 | Fomenting | 24.30 | 793 | Food | 36.50 |
| 772 | Foliation | 800 | 23.40 | 783 | Fomentation .. | 35.00 | 794 | Foolery | 52.50 |
| 773 | Folio | 1000 | 28.60 | 784 | Fomentor | 43.00 | 795 | Foolish | 64.50 |

Single Throw with Fuse.

| Single Pole. | | | | Double Pole. | | | Three Pole. | | |
|--------------|-----------------|-------------------|---------|--------------|-----------------|---------|-------------|-----------------|---------|
| No. | Trade Word. | Capacity Amperes. | Price. | No. | Trade Word. | Price. | No. | Trade Word. | Price. |
| 796 | Foolishly | 25 | | 807 | Footnote | | 818 | Foray | |
| 797 | Foolishness .. | 50 | \$ 4.40 | 808 | Footpad | \$ 6.60 | 819 | Forbade | \$10.00 |
| 798 | Foolscap | 75 | 5.20 | 809 | Footprint | 7.80 | 820 | Forbear | 11.80 |
| 799 | Foot | 100 | 6.00 | 810 | Footstep | 9.00 | 821 | Forbearance .. | 13.60 |
| 800 | Football | 200 | 9.70 | 811 | Footstool | 14.50 | 822 | Forbid | 21.70 |
| 801 | Footboy | 300 | 12.00 | 812 | Foppery | 18.00 | 823 | Forbidden | 27.00 |
| 802 | Footbridge .. | 400 | 15.40 | 813 | Foppish | 23.00 | 824 | Forbidding .. | 34.50 |
| 803 | Foothold | 500 | 18.00 | 814 | Forage | 27.00 | 825 | Forborn | 40.50 |
| 804 | Footing | 600 | 20.60 | 815 | Foraged | 31.00 | 826 | Force | 46.50 |
| 805 | Footlight | 800 | 29.50 | 816 | Foraging | 44.00 | 827 | Forced | 66.00 |
| 806 | Footman | 1000 | 37.00 | 817 | Forager | 54.00 | 828 | Forcing | 82.50 |

Front connection, mounted switches, always understood unless otherwise specified. Made in either front or back connections for switchboard use.

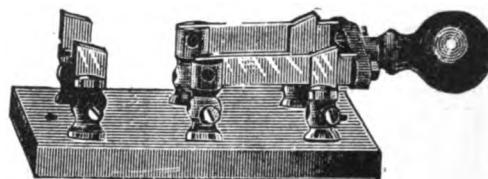
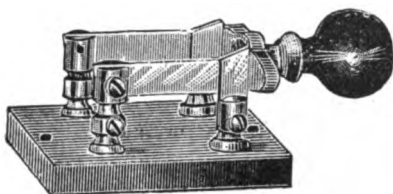
Sizes over 500 ampere have double knives. Sizes over 200 ampere have wire terminals and set nut to take up wear in hinge joint. Sizes under 200 ampere have wire hole and set screw.

Data sheets of these switches showing all dimensions of back connection switches sent on application.

The above switches will be made in polished finish for 25 per cent. extra.

ELECTRIC LIGHT AND POWER SUPPLIES.

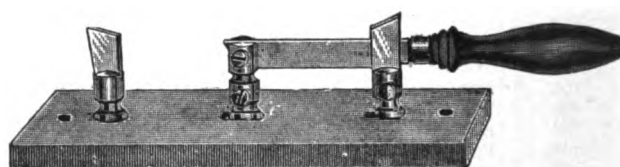
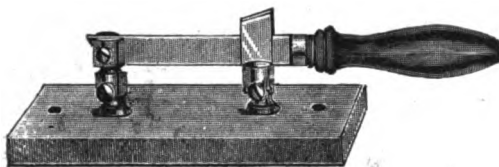
POLISHED KNIFE SWITCHES.



Knives and contact brushes are made of pure copper.
Terminal posts finished in polished brass.

| Trade Word. | No. | Ampere Capacity. | | Price Each. |
|-------------|-----|------------------|---------------------------|-------------|
| Formalism. | 0. | 15 | S. P. S. T. | 1.00 |
| Formalist. | 1. | 15 | " " with fuse connection. | 1.05 |
| Formality. | 2. | 15 | S. P. D. T. | 1.50 |
| Formation. | 3. | 15 | " " with fuse connection. | 1.65 |
| Formative. | 4. | 15 | D. P. S. T. | 1.00 |
| Former. | 5. | 15 | " " with fuse connection. | 1.65 |

| Trade Word. | No. | Ampere Capacity. | | Price Each. |
|-------------|-----|------------------|---------------------------|-------------|
| Formerly. | 6. | 15 | D. P. S. T. | 2.00 |
| Formidable. | 7. | 15 | " " with fuse connection. | 2.25 |
| Formless. | 8. | 15 | T. P. S. T. | 2.25 |
| Formula. | 9. | 15 | " " with fuse connection. | 3.00 |
| Formular. | 10. | 15 | T. P. D. T. | 3.50 |
| Formulate. | 11. | 15 | " " with fuse connection. | 4.50 |



Knives and contact brushes are made of pure copper.
Terminal posts finished in polished brass.
In ordering specify after trade word, with or without fuse, as desired.

Single Pole, Single Throw.

Slate bases.

| Trade Word. | No. | Ampere Capacity. | Price | |
|-------------|-----|------------------|---------------|------------|
| | | | Without Fuse. | With Fuse. |
| Forsake. | 12. | 25 | \$0.95 | 13. \$1.30 |
| Forsay. | 24. | 50 | 1.45 | 25. 1.90 |
| Forsooth. | 36. | 75 | 1.80 | 37. 2.50 |

Single Pole, Double Throw.

Slate bases.

| Trade Word. | No. | Ampere Capacity. | Price | |
|-------------|-----|------------------|---------------|------------|
| | | | Without Fuse. | With Fuse. |
| Forswear. | 14. | 25 | \$1.60 | 15. \$2.20 |
| Fort. | 26. | 50 | 2.70 | 27. 3.55 |
| Forthwith. | 38. | 75 | 3.40 | 39. 4.50 |

Double Pole, Single Throw.

Slate bases.

| Trade Word. | No. | Ampere Capacity. | Price | |
|----------------|-----|------------------|---------------|------------|
| | | | Without Fuse. | With Fuse. |
| Fortify. | 16. | 25 | \$1.10 | 17. \$1.65 |
| Fortification. | 28. | 50 | 1.80 | 29. 2.50 |
| Fortitude. | 40. | 75 | 3.20 | 41. 4.30 |

Double Pole, Double Throw.

Slate bases.

| Trade Word. | No. | Ampere Capacity. | Price | |
|-------------|-----|------------------|---------------|------------|
| | | | Without Fuse. | With Fuse. |
| Fortress. | 18. | 25 | \$2.75 | 19. \$3.60 |
| Fortunate. | 30. | 50 | 3.35 | 31. 4.30 |
| Fortune. | 42. | 75 | 4.70 | 43. 6.30 |

Triple Pole, Single Throw.

| Trade Word. | No. | Ampere Capacity. | Price | |
|-------------|-----|------------------|---------------|------------|
| | | | Without Fuse. | With Fuse. |
| Forum. | 20. | 25 | \$2.20 | 21. \$3.60 |
| Forward. | 32. | 50 | 3.60 | 33. 5.25 |
| Fossil. | 44. | 75 | 5.00 | 45. 6.60 |

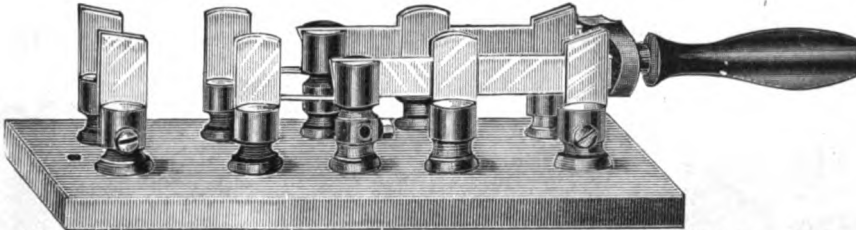
Triple Pole, Double Throw.

| Trade Word. | No. | Ampere Capacity. | Price | |
|-------------|-----|------------------|---------------|------------|
| | | | Without Fuse. | With Fuse. |
| Foster. | 22. | 25 | \$3.60 | 23. \$4.80 |
| Fought. | 34. | 50 | 5.65 | 35. 7.00 |
| Foul. | 4 | 75 | 7.35 | 47. 10.00 |

ELECTRIC LIGHT AND POWER SUPPLIES.

POLISHED KNIFE SWITCHES.

220 Volt.



Knives and contact brushes are made of pure copper. Terminal posts are finished in polished brass. In ordering specify after trade word, with or without fuse, as desired.

Single Pole, Single Throw.

| Slate bases. | | Price. | |
|-----------------|------------------|---------------|----------------|
| Trade Word. | Ampere Capacity. | Without Fuse. | With Fuse. |
| Fouled. No. 48. | 100 | \$2.95 | No. 49. \$3.55 |

Double Pole, Single Throw.

| Slate bases. | | Price. | |
|------------------|------------------|---------------|-----------------|
| Trade Word. | Ampere Capacity. | Without Fuse. | With Fuse. |
| Fount. No. 52 | 100 | \$ 5.70 | No. 53. \$ 8.00 |
| Fountain. No. 64 | 150 | 12.80 | No. 65. 17.00 |

Triple Pole, Single Throw.

| Slate bases. | | Price. | |
|-------------------|------------------|---------------|-----------------|
| Trade Word. | Ampere Capacity. | Without Fuse. | With Fuse. |
| Fragile. No. 56 | 100 | \$ 8.30 | No. 57. \$10.70 |
| Fragility. No. 68 | 150 | 16.00 | No. 69. 21.40 |

Single Pole, Double Throw.

| Slate bases. | | Price. | |
|--------------------|------------------|---------------|----------------|
| Trade Word. | Ampere Capacity. | Without Fuse. | With Fuse. |
| Foundation. No. 50 | 100 | \$5.40 | No. 51. \$7.15 |

Double Pole, Double Throw.

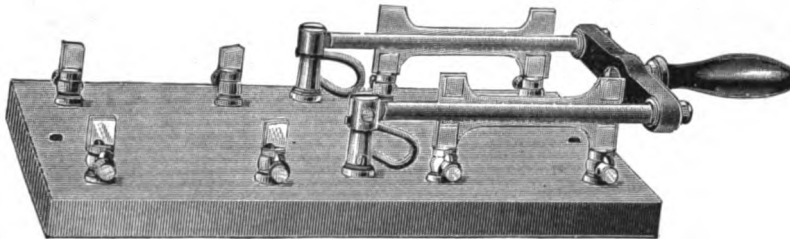
| Slate bases. | | Price. | |
|----------------|------------------|---------------|-----------------|
| Trade Word. | Ampere Capacity. | Without Fuse. | With Fuse. |
| Foxy. No. 54 | 100 | \$10.00 | No. 55. \$13.30 |
| Fracas. No. 66 | 150 | 19.20 | No. 67. 25.60 |

Triple Pole, Double Throw.

| Slate bases. | | Price. | |
|------------------|------------------|---------------|-----------------|
| Trade Word. | Ampere Capacity. | Without Fuse. | With Fuse. |
| Fragrant. No. 58 | 100 | \$16.00 | No. 59. \$24.00 |
| Frail. No. 70 | 150 | 28.80 | No. 71. 38.40 |

POLISHED SPRING HINGE KNIFE SWITCHES.

220 Volt.



Knives and contact brushes are made of pure copper. Terminal posts and trimmings finished in polished brass. In ordering specify after trade word, with or without fuse, as desired.

Single Pole, Single Throw.

| Slate bases. | | Price. | |
|--------------|------|-----------------|------------------|
| Trade Word. | No. | Ampere capacity | 15, without fuse |
| Freshet. | 144. | " | " |
| Freshly. | 148. | " | " |
| Fret. | 152. | " | " |
| Fretted. | 156. | " | " |
| Fretting. | 160. | " | " |
| Fricassee. | 189. | " | " |
| Friction. | 190. | " | " |
| Fried. | 191. | " | " |

Single Pole, Double Throw.

| Slate bases. | | Price. | |
|--------------|------|-----------------|------------------|
| Trade Word. | No. | Ampere capacity | 15, without fuse |
| Fretful. | 145. | " | " |
| Fretfully. | 149. | " | " |
| Friable. | 153. | " | " |
| Friary. | 157. | " | " |
| Fribble. | 161. | " | " |
| Friendless. | 192. | " | " |
| Friendly. | 193. | " | " |
| Frigate. | 194. | " | " |

Double Pole, Single Throw.

| Slate bases. | | Price. | |
|--------------|------|-----------------|------------------|
| Trade Word. | No. | Ampere capacity | 15, without fuse |
| Fright. | 146. | " | " |
| Frighten. | 150. | " | " |
| Frightful. | 154. | " | " |
| Frigid. | 158. | " | " |
| Frigidity. | 162. | " | " |
| Frill. | 195. | " | " |
| Fripped. | 196. | " | " |
| Frilling. | 197. | " | " |

Double Pole, Double Throw.

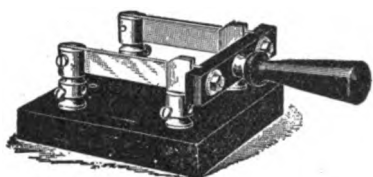
| Slate bases. | | Price. | |
|--------------|------|-----------------|------------------|
| Trade Word. | No. | Ampere capacity | 15, without fuse |
| Fringe. | 147. | " | " |
| Fringed. | 151. | " | " |
| Fringing. | 155. | " | " |
| Frippery. | 159. | " | " |
| Frisk. | 163. | " | " |
| Frisked. | 198. | " | " |
| Frisking. | 199. | " | " |
| Frisky. | 200. | " | " |

For Back Connections, add 20 per cent.
For Three Pole, add 50 per cent.

For Fuse Connections, add 33¼ per cent.
For 500 Volt, add 50 per cent.

ELECTRIC LIGHT AND POWER SUPPLIES.

TYPE D, SINGLE BREAK.

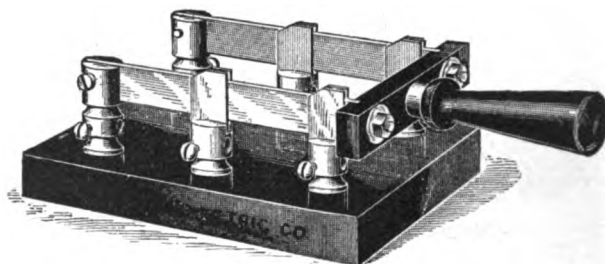


Mounted on porcelain base which can be furnished either black enameled or white glazed.

Trade Word. No. Amperes.

Frowned. 1184. 50 D. P. S. T. with black enameled base \$1.70
Frowning. 1185. 50 D. P. S. T. white glazed base 1.70

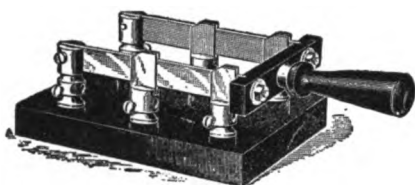
TYPE D, DOUBLE BREAK.



Mounted on porcelain base which can be furnished in either black enameled or white glazed.

| Trade Word. | No. | Amperes. | Price. |
|-------------|-------|----------|--|
| Frozen. | 1236. | 50 | D. P. S. T. with black enameled slate base .. \$2.50 |
| Frugal. | 1237. | 50 | D. P. S. T. white glazed base..... 2.50 |
| Frugality. | 1238. | 35 | D. P. S. T. with black enameled base 1.80 |
| Fruit. | 1239. | 35 | D. P. S. T. white glazed base..... 1.80 |

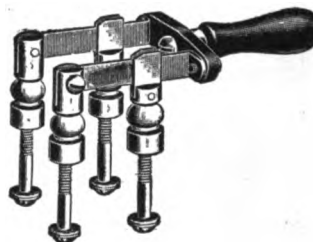
TYPE E, DOUBLE BREAK.



Slate bases.

| Trade Word. | No. | Ampere. | Price. |
|--------------|-------|------------------------|---------|
| Fruitage. | 1196. | 50 S. P. S. T. | \$ 1.25 |
| Fruitful. | 1197. | 50 S. P. D. T. | 2.10 |
| Fruition. | 1198. | 50 S. P. S. T. fusible | 2.10 |
| Fruitless. | 1199. | 50 D. P. S. T. | 1.80 |
| Frustrate. | 1200. | 50 D. P. D. T. | 2.80 |
| Frustration. | 1201. | 50 D. P. S. T. fusible | 2.80 |
| Fuddle. | 1202. | 50 T. P. S. T. | 3.70 |
| Fudge. | 1203. | 50 T. P. D. T. | 5.40 |
| Fuel. | 1204. | 50 T. P. S. T. fusible | 5.40 |

TYPE B.

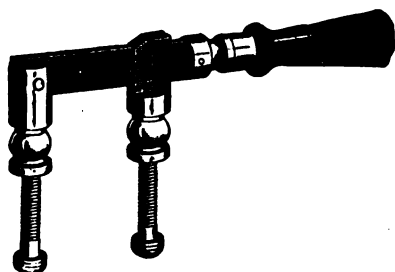


Unmounted knife switches for tablet board work.

| Trade Word. | No. | Amperes. | Price. |
|-------------|-------|----------------|--------|
| Fugacious. | 1103. | 15 D. P. S. T. | \$0.36 |
| Fugacity. | 1152. | 15 D. P. D. T. | .65 |
| Fugitive. | 1075. | 25 D. P. S. T. | .45 |
| Fulfill. | 1153. | 25 D. P. D. T. | .82 |

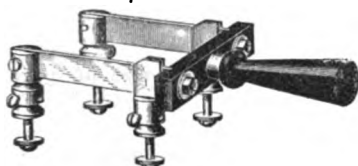
TYPE C.

Unmounted knife switches.



| Trade Word. | No. | Amperes. | Price. |
|--------------|-------|------------------------|--------|
| Fulfillment. | 1160. | 35 S. P. S. T. | \$0.92 |
| Fulgent. | 1161. | 35 S. P. D. T. | .95 |
| Full. | 1162. | 35 S. P. S. T. fusible | .95 |
| Fuller. | 1059. | 35 D. P. S. T. | 1.10 |
| Fullest. | 1060. | 35 D. P. S. T. fusible | 1.60 |
| Fullery. | 1061. | 35 D. P. D. T. | 1.60 |
| Fullness. | 1154. | 35 T. P. S. T. | 2.00 |
| Fulminate. | 1155. | 35 T. P. D. T. | 2.40 |
| Fulsome. | 1156. | 35 T. P. S. T. fusible | 2.40 |
| Fulvid. | 1157. | 35 T. P. D. T. " | 2.75 |

TYPE "C" UNMOUNTED KNIFE SWITCHES.

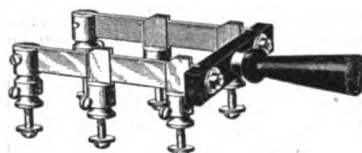


No. 1208.

| Trade Word. | No. | | | | | | Price. |
|--------------|-------|----|---------|--------|--------|--------------|--------|
| Fulvous. | 1205. | 50 | Ampere, | single | pole, | single throw | \$1.05 |
| Fumble. | 1206. | 50 | " | " | double | " | 1.55 |
| Fume. | 1207. | 50 | " | " | single | " fusible | 1.55 |
| Fumigate. | 1225. | 50 | " | " | double | " " | 1.90 |
| Fumigated. | 1208. | 50 | Ampere, | double | pole, | single throw | \$1.55 |
| Fumigating. | 1209. | 50 | " | " | double | " | 2.30 |
| Fumigation. | 1210. | 50 | " | " | single | " fusible | 2.30 |
| Function. | 1226. | 50 | " | " | double | " " | 2.75 |
| Functional. | 1211. | 50 | Ampere, | three | pole, | single throw | \$3.00 |
| Functionary. | 1212. | 50 | " | " | double | " | 5.00 |
| Fund. | 1213. | 50 | " | " | single | " fusible | 5.00 |
| Fundament. | 1215. | 50 | " | " | double | " " | 5.50 |

Unmounted.

| Trade Word. | No. | | | | | Price. |
|-------------|-------|----|-----------------------------------|---------|-------|--------|
| Furious. | 1214. | 50 | Ampere, single pole, single throw | ..... |  | \$1.35 |
| Furiously. | 1215. | 50 | " " double " | ..... |  | 2.20 |
| Furlong. | 1216. | 50 | " " single " | fusible | ..... | 2.20 |
| Furnace. | 1223. | 50 | " " double " | " " | ..... | 2.75 |
| Furnish. | 1217. | 50 | Ampere, double pole, single throw | ..... |  | \$2.00 |
| Furrier. | 1218. | 50 | " " double " | ..... |  | 3.10 |
| Furtive. | 1219. | 50 | " " single " | fusible | ... | 3.10 |
| Fury. | 1224. | 50 | " " double " | " " | ..... | 3.90 |
| Furrow. | 1220. | 50 | Ampere, three pole, single throw | ..... |  | \$3.90 |
| Fuscous. | 1221. | 50 | " " double " | ..... |  | 5.80 |
| Fusillade. | 1222. | 50 | " " single " | fusible | ..... | 5.80 |
| Fusion. | 1126. | 50 | " " double " | " " | ..... | 6.00 |



No 1317.

A detailed black and white illustration of a mechanical device, likely a press or a pump. It features a horizontal beam with a handle on the right and a vertical rod on the left, mounted on a base. The device is shown in a perspective view, highlighting its mechanical components and the texture of the metal.

500 volt, slate base

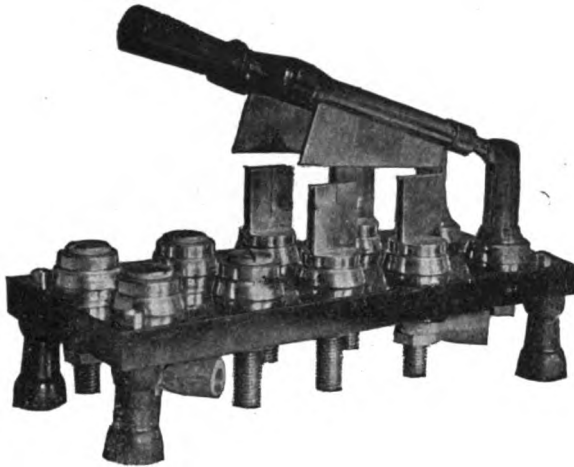
| Trade Word. | No. | Capacity. | Price. |
|-------------|------|---------------------------------|--------------|
| Freedom. | 168. | 25 Ampere, D. P., S. T. | each, \$6.50 |
| Freehold. | 169. | 50 " " " | " 8.60 |

Davis Quick Break Railway Switch.

ELECTRIC LIGHT AND POWER SUPPLIES.

TUBULAR ARM SWITCH, DOUBLE BREAK.

Style "A."



The arm of this type of switch is sectional, the blade is of hard drawn copper held in slotted tube by end plugs and bushings.

All parts carrying current are made of pure copper.

Are furnished with front or back connections as may be desired.

Switches above 600 amperes are made with multiple jaws.

Without Fuse Connection. Polished.

| Trade Word. | Amp. | S. P. S. T. Prefix. | D. P. S. T. Prelude. | 3 P. S. T. Preluded. | S. P. D. T. Premier. | D. P. D. T. Premise. | 3 P. D. T. Preoccupy. |
|---------------------|------|---------------------------|----------------------------|----------------------------|----------------------------|----------------------------|-----------------------------|
| Preferable | 25 | \$ 1.80 | \$ 3.04 | \$ 4.40 | \$ 2.56 | \$ 4.80 | \$ 6.80 |
| Preference | 50 | 3.20 | 5.44 | 7.60 | 4.96 | 8.48 | 12.00 |
| Preferment | 75 | 4.20 | 7.20 | 10.40 | 6.80 | 12.00 | 17.20 |
| Prelibation | 100 | 5.60 | 9.60 | 12.40 | 8.32 | 14.24 | 20.40 |
| Preliminary | 150 | 6.40 | 10.80 | 14.40 | 8.96 | 16.80 | 23.68 |
| Preluding | 200 | 7.20 | 12.00 | 16.80 | 10.80 | 20.00 | 32.00 |
| Prelusive | 300 | 9.60 | 17.12 | 23.20 | 15.20 | 28.00 | 38.88 |
| Prelusory | 400 | 12.00 | 21.60 | 28.80 | 18.40 | 35.20 | 48.00 |
| Premediate | 500 | 13.60 | 24.40 | 34.40 | 20.80 | 37.60 | 54.40 |
| Premeditation . . . | 600 | 16.00 | 28.80 | 43.20 | 25.20 | 46.40 | 64.00 |
| Premiership | 800 | 20.80 | 37.60 | 52.80 | 31.60 | 56.80 | 80.00 |
| Premonitory | 1000 | 25.60 | 47.20 | 64.00 | 40.00 | 72.00 | 105.60 |

With Fuse Connection. Polished.

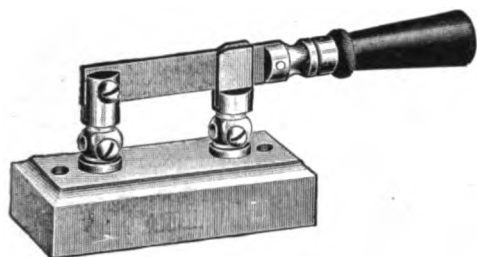
| Trade Word. | Amp. | S. P. S. T. Presage. | D. P. S. T. Prescience. | 3 P. S. T. Prescribe. | S. P. D. T. Present. | D. P. D. T. Presently. | 3 P. D. T. Preserve. |
|----------------------|------|----------------------------|-------------------------------|-----------------------------|----------------------------|------------------------------|----------------------------|
| Preordain | 25 | \$ 2.16 | \$ 3.80 | \$ 5.20 | \$ 3.20 | \$ 5.76 | \$ 8.00 |
| Preordination . . . | 50 | 3.60 | 6.00 | 8.40 | 5.60 | 9.60 | 13.60 |
| Preparation | 75 | 5.12 | 8.64 | 13.20 | 8.40 | 15.20 | 21.60 |
| Preparatory | 100 | 6.72 | 11.60 | 15.20 | 10.20 | 18.00 | 25.20 |
| Prepare | 150 | 7.60 | 13.20 | 17.40 | 11.20 | 21.20 | 29.60 |
| Prepay | 200 | 8.80 | 14.40 | 20.24 | 13.20 | 25.60 | 40.00 |
| Prepayment | 300 | 12.00 | 20.80 | 28.40 | 19.04 | 36.00 | 49.60 |
| Prepense | 400 | 14.80 | 27.20 | 34.40 | 23.20 | 44.40 | 62.40 |
| Preposition | 500 | 16.40 | 29.60 | 41.60 | 26.00 | 47.20 | 68.00 |
| Prepositive | 600 | 20.00 | 36.00 | 53.20 | 31.20 | 60.00 | 78.40 |
| Prepossess | 800 | 26.80 | 45.20 | 64.00 | 40.00 | 71.20 | 100.00 |
| Prepossesses | 1000 | 32.00 | 59.20 | 76.80 | 50.40 | 92.40 | 132.00 |

Deduct 5 per cent. for plain finish.

Front connection switches will be shipped unless otherwise specified.

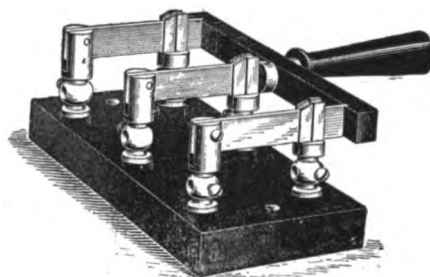
ELECTRIC LIGHT AND POWER SUPPLIES.

BABY KNIFE SWITCHES.



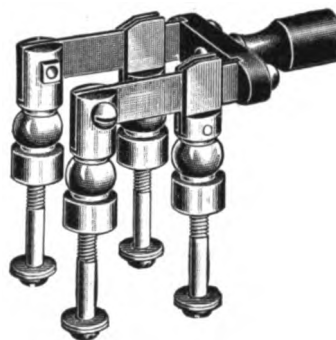
Type A.
Porcelain base.

| Trade Word. | Number. | Ampere Capacity. | | Price Each. |
|-------------|---------|------------------|-------------------|-------------|
| Frith. | 1001 | 15 | S. P. S. T..... | \$0.38 |
| Fritter. | 1039 | 15 | " D. T..... | .60 |
| Frittered. | 974 | 15 | D. P. S. T..... | .50 |
| Frittering. | 1041 | 15 | " D. T..... | .95 |
| Frivolity. | 1052 | 15 | 3 wire, S. T..... | 1.00 |
| Frivolous. | 977 | 25 | S. P. "..... | .45 |
| Friz. | 1040 | 25 | " D. P..... | .85 |
| Frizzle. | 978 | 25 | D. P. S. T..... | .60 |
| Frock. | 1042 | 25 | " D. T..... | 1.20 |
| Frolic. | 979 | 25 | 3 wire, S. T..... | 1.25 |



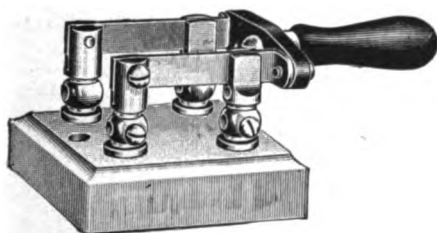
Type C.
Slate base.

| Trade Word. | Number. | Ampere Capacity. | | Price Each. |
|-------------|---------|------------------|-------------------|-------------|
| Froliced. | 1147 | 35 | S. P. S. T..... | \$1.00 |
| Frolicing. | 1043 | 35 | D. P. "..... | 1.10 |
| Folicsome. | 1044 | 35 | " " for fuse.. | 1.80 |
| Frontage. | 1045 | 35 | D. P. D. T..... | 1.80 |
| Frontal. | 1099 | 35 | 3 pole, S. T..... | 1.95 |
| Frontier. | 1100 | 35 | " " for fuse.. | 3.30 |
| Frontless. | 1101 | 35 | 3 pole, D. T..... | 3.30 |



Type A.
Unmounted knife switches for tablet board work.

| Trade Word. | Number. | Ampere Capacity. | | Price Each. |
|-------------|---------|------------------|------------------------|-------------|
| Froth. | 1048 | 15 | S. P. S. T. unmounted. | \$0.36 |
| Frothed. | 1049 | 15 | D. P. "..... | .60 |
| Frothing. | 1050 | 15 | S. P. D. T..... | .60 |
| Frothily. | 1051 | 15 | D. P. "..... | .95 |
| Frothy. | 1053 | 15 | 3 wire, S. T..... | 1.00 |
| Frounce. | 1054 | 25 | S. P. "..... | .40 |
| Frounced. | 1055 | 25 | D. P. "..... | .68 |
| Frouncing. | 1056 | 25 | S. P. D. T..... | .80 |
| Frouzy. | 1057 | 25 | D. P. "..... | 1.15 |
| Frown. | 1058 | 25 | 3 wire, S. T..... | 1.15 |



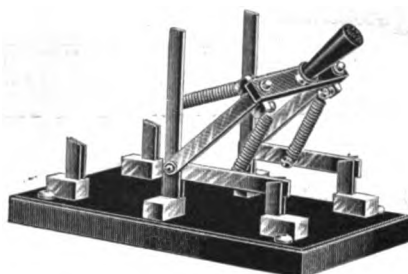
Type D.
Porcelain base.

| Trade Word. | Number. | Ampere Capacity. | | Price Each. |
|--------------|---------|------------------|-----------------|-------------|
| Frequent. | 0000 | 15 | S. P. S. T..... | \$0.35 |
| Frost. | 1102 | 15 | D. P. S. T..... | .40 |
| Frostbitten. | 1074 | 25 | " "..... | .50 |

Prices on unmounted switches include screws as per cut.

ELECTRIC LIGHT AND POWER SUPPLIES.

HILL QUICK BREAK SWITCHES.



Made in bright finish only, i. e., ground smooth and lacquered. Has red fibre yoke and hard rubber handle.

Double Throw without Fuse.

| Single Pole. | | | | Double Pole. | | | Three Pole. | | |
|--------------|---------------|-------------------|---------|--------------|------------------|---------|-------------|-----------------|---------|
| No. | Trade Word. | Capacity Amperes. | Price. | No. | Trade Word. | Price. | No. | Trade Word. | Price. |
| 829 | Forceps..... | 50 | \$ 6.90 | 839 | Forebode..... | \$10.40 | 849 | Forefront..... | \$15.65 |
| 830 | Forcer..... | 75 | 8.15 | 840 | Forecast..... | 12.25 | 850 | Forego..... | 18.40 |
| 831 | Forcible..... | 100 | 9.40 | 841 | Forecastle..... | 14.15 | 851 | Foregoing..... | 22.15 |
| 832 | Forcibly..... | 200 | 13.25 | 842 | Forecited..... | 20.00 | 852 | Foreground..... | 30.00 |
| 833 | Ford..... | 300 | 16.50 | 843 | Foreclose..... | 25.00 | 853 | Forehand..... | 37.50 |
| 834 | Forded..... | 400 | 21.25 | 844 | Foreclosure..... | 31.90 | 854 | Forehead..... | 48.15 |
| 835 | Fording..... | 500 | 24.40 | 845 | Forefather..... | 36.90 | 855 | Foreign..... | 55.65 |
| 836 | Fordable..... | 600 | 27.90 | 846 | Forefend..... | 41.90 | 856 | Foreigner..... | 63.15 |
| 837 | Fore..... | 800 | 38.15 | 847 | Forefinger..... | 58.15 | 857 | Foreland..... | 87.50 |
| 838 | Forearm..... | 1000 | 50.00 | 848 | Forefoot..... | 76.25 | 858 | Forelock..... | 115.00 |

Double Throw with Fuse.

| Single Pole. | | | | Double Pole. | | | Three Pole. | | |
|--------------|-----------------|-------------------|---------|--------------|------------------|---------|-------------|------------------|---------|
| No. | Trade Word. | Capacity Amperes. | Price. | No. | Trade Word. | Price. | No. | Trade Word. | Price. |
| 859 | Foreman..... | 50 | \$ 7.75 | 869 | Foreskin..... | \$12.40 | 879 | Forfeit..... | \$18.75 |
| 860 | Foremost..... | 75 | 9.75 | 870 | Forest..... | 14.65 | 880 | Forfeitable..... | 22.15 |
| 861 | Forename..... | 100 | 11.25 | 871 | Forestall..... | 16.90 | 881 | Forfeiture..... | 25.65 |
| 862 | Forepart..... | 200 | 16.50 | 872 | Forester..... | 25.00 | 882 | Forgave..... | 37.50 |
| 863 | Forerun..... | 300 | 20.40 | 873 | Foretaste..... | 30.65 | 883 | Forge..... | 46.00 |
| 864 | Foresail..... | 400 | 26.65 | 874 | Foretell..... | 40.00 | 884 | Forged..... | 60.00 |
| 865 | Foreseer..... | 500 | 31.25 | 875 | Foretold..... | 46.90 | 885 | Forging..... | 68.15 |
| 866 | Foreshadow..... | 600 | 35.75 | 876 | Forethought..... | 53.75 | 886 | Forger..... | 79.25 |
| 867 | Foresight..... | 800 | 48.25 | 877 | Foretop..... | 72.50 | 887 | Forgery..... | 110.00 |
| 868 | Foreseen..... | 1000 | 63.75 | 878 | Forenam..... | 95.65 | 888 | Forget..... | 145.65 |

Front connection, mounted switches, always understood unless otherwise specified. Made in either front or back connections for switchboard use.

Sizes over 500 ampere have double knives. Sizes over 200 ampere have wire terminals and set nut to take up wear in hinge joint. Sizes under 200 ampere have wire hole and set screw.

Data sheets of these switches showing all dimensions of back connection switches sent on application.

The above switches will be made in polished finish for 25 per cent extra.

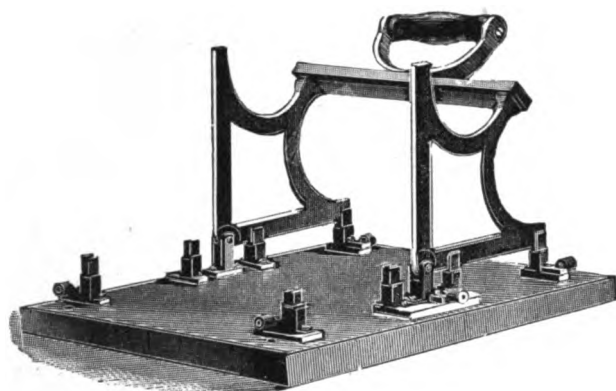
ELECTRIC LIGHT AND POWER SUPPLIES.

HILL HIGH POTENTIAL SWITCHES.

Up to and including 3,000 volt.

Mounted on black polished slate base and furnished with front or back connection as required.

Front connection switches understood unless otherwise ordered. In ordering state after trade word, plain or polished, as desired.

**Double Pole, Single Throw.**

| Trade Word. | Capacity Amperes. | Price. | |
|-------------|----------------------|---------|-----------|
| | | Plain. | Polished. |
| Forgetful. | 50 | \$11.00 | \$13.00 |
| Forgivable. | 100 | 16.00 | 19.00 |
| Forgive. | 200 | 22.00 | 26.00 |

Double Pole, Double Throw.

| Trade Word. | Capacity Amperes. | Price. | |
|--------------|----------------------|---------|-----------|
| | | Plain. | Polished. |
| Forgiveness. | 50 | \$14.00 | \$16.00 |
| Forgiver. | 100 | 22.00 | 25.00 |
| Forgiving. | 200 | 28.00 | 32.00 |

These switches are designed especially to be placed on the back of switch boards with the handle projecting through the front of board.

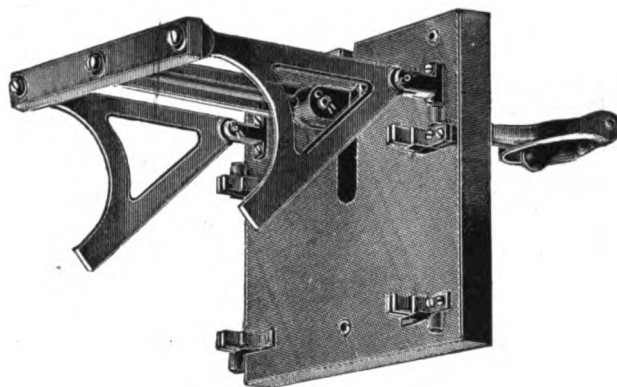
Mounted on black polished slate, absolutely safe and reliable. In ordering state after trade word, plain or polished, as desired.

Double Pole, Single Throw.

| Trade Word. | Capacity Amperes. | Price. | |
|-------------|----------------------|---------|-----------|
| | | Plain. | Polished. |
| Forgotten. | 50 | \$17.00 | \$20.00 |
| Fork. | 100 | 26.00 | 30.00 |
| Forked. | 200 | 35.00 | 40.00 |

Double Pole, Double Throw.

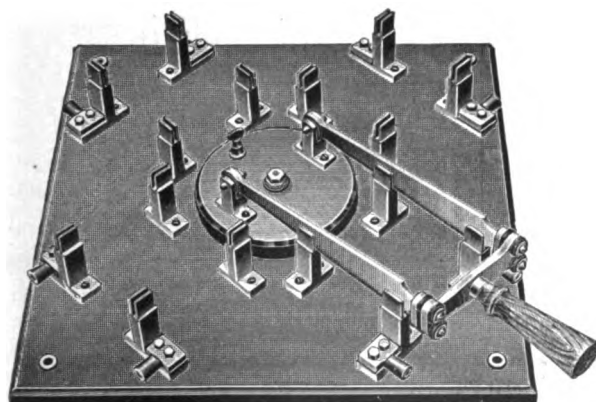
| Trade Word. | Capacity Amperes. | Price. | |
|-------------|----------------------|---------|-----------|
| | | Plain. | Polished. |
| Forlorn. | 50 | \$24.00 | \$27.00 |
| Form. | 100 | 35.00 | 39.00 |
| Formey. | 200 | 46.00 | 52.00 |

**Four Way Switch.**

For alternating work. In ordering state after trade word, plain or polished, as desired.

| Trade Word. | Capacity Amperes. | Price. | |
|-------------|----------------------|---------|-----------|
| | | Plain. | Polished. |
| Forming. | 50 | \$27.00 | \$33.00 |
| Formal. | 100 | 42.00 | 50.00 |

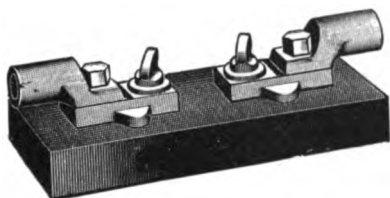
Can be used on high potential work with perfect safety. Impossible to get a short circuit.



ELECTRIC LIGHT AND POWER SUPPLIES.

MICHIGAN SAFETY CATCH HOLDER.

Slate base.



Possessing removable lugs, the sweating in of large wires and cables is easily effected. This device should be appreciated.

| Trade Word. | Capacity. | | Price. |
|-------------|-------------|-------------|--------|
| Partridge. | 250 Amperes | each, | \$2.40 |
| Passable. | 400 " | " | 3.50 |
| Passage. | 600 " | " | 6.00 |

MICHIGAN PLUG SWITCH.

Slate base.

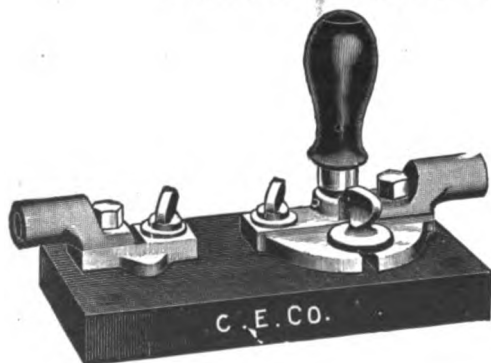
| Trade Word. | Capacity. | | Price |
|-------------|-------------|-------------|--------|
| Passenger. | 250 Amperes | each, | \$3.00 |
| Passing. | 400 " | " | 4.50 |
| Passion. | 600 " | " | 7.50 |



MICHIGAN PLUG SWITCH WITH SAFETY CATCH.

Slate base.

Also furnished with removable lugs.

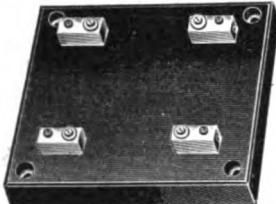


| Trade Word. | Capacity. | | Price. |
|-------------|-------------|-------------|--------|
| Passionate. | 250 Amperes | each, | \$4.50 |

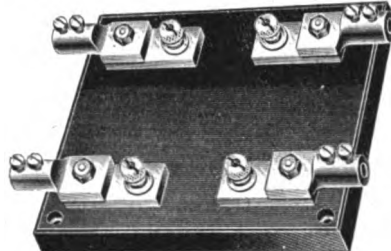
ELECTRIC LIGHT AND POWER SUPPLIES.

MAIN LINE FUSE BLOCKS.

Slate base, 250 volts and under.



Style 100 ampere and under.



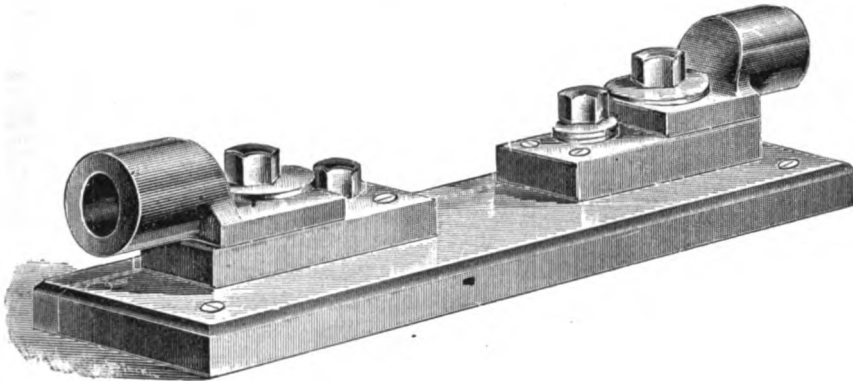
Style above 100 to 600 ampere.

N. B. Terminals without set screws furnished unless otherwise ordered.

| Trade Word. | | | | | Price Without Fuse. each, \$10.50 |
|--------------|--------------|--------------------|--|--|---|
| Passive. | Triple pole, | 300 to 600 Amperes | | | |
| Passively. | " " | 100 to 300 " | | | 7.50 |
| Passiveness. | " " | 25 to 100 " | | | 4.50 |
| Passport. | " " | 1 to 25 " | | | 3.00 |
| Password. | Double " | 300 to 600 " | | | 7.00 |
| Pastil. | " " | 100 to 300 " | | | 5.00 |
| Pastime. | " " | 25 to 100 " | | | 3.00 |
| Pastor. | " " | 1 to 25 " | | | 2.00 |
| Pastoral. | Single " | 300 to 600 " | | | 3.50 |
| Pastorate. | " " | 100 to 300 " | | | 2.50 |
| Pastry. | " " | 25 to 100 " | | | 1.50 |
| Pasture. | " " | 1 to 25 " | | | 1.00 |

MAIN LINE FUSE BLOCKS.

Slate base, 500 volts and under.



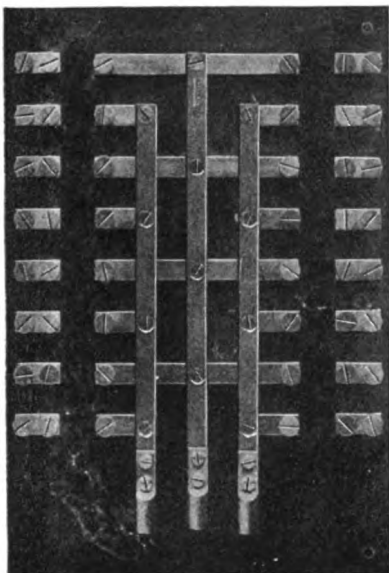
For large carrying capacity.

The terminals will always be furnished large enough for stranded cable unless otherwise ordered.

| Trade Word. | | | | | Price Without Fuse. each, \$33.00 |
|-------------|--------------|----------------------|--|--|---|
| Patch. | Triple pole, | 1500 to 2000 Amperes | | | |
| Patent. | " " | 1000 to 1500 " | | | 25.50 |
| Path. | " " | 600 to 1000 " | | | 18.00 |
| Pathetic. | Double " | 1500 to 2000 " | | | 22.00 |
| Pathos. | " " | 1000 to 1500 " | | | 17.00 |
| Pathway. | " " | 600 to 1000 " | | | 12.00 |
| Patience. | Single " | 1500 to 2000 " | | | 11.00 |
| Patiently. | " " | 1000 to 1500 " | | | 8.50 |
| Patriot. | " " | 600 to 1000 " | | | 6.00 |

Prices quoted on fuse blocks do not include fuses.

ELECTRIC LIGHT AND POWER SUPPLIES.



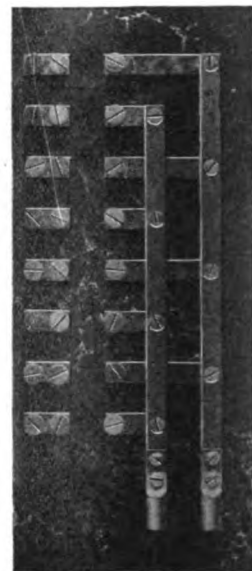
Type A.

STANDARD PANEL
BOARDS.

All the metal carrying parts of these boards are of lake copper of high conductivity.

All joints are accurately fitted, and will carry rated current without undue heating.

Furnished with two or three wire mains and two or three wire branches.



Type AA.

Prices of Type A Panel Boards.

With 2-wire branches; for 3-wire branches, take price of equivalent in 2-wire.

| Number of Circuits. | 2 Wire Mains. | | | | 3 Wire Mains. | | | | Dimensions of Panel Board. | | | |
|---------------------|---------------|---------------|----------------------------|---------------|---------------|---------------|----------------------------|---------------|----------------------------|---------------------|---------------------|---------------------|
| | Panel Board. | | Slate Box and Door Lining. | | Panel Board. | | Slate Box and Door Lining. | | Length. | Width 2-Wire Mains. | Width 3-Wire Mains. | Depth of Slate Box. |
| | Price. | Catalogue No. | Price. | Catalogue No. | Price. | Catalogue No. | Price. | Catalogue No. | | | | |
| 2 | \$5.00 | PB 22A | \$1.50 | PX 22A | \$5.75 | PB 23A | \$1.65 | PX 23A | 6 1/4 | 8 1/4 | 9 1/4 | 3 |
| 4 | 7.00 | PB 42A | 1.85 | PX 42A | 8.00 | PB 43A | 2.00 | PX 43A | 9 | 8 1/4 | 9 1/4 | 3 |
| 6 | 9.00 | PB 62A | 2.20 | PX 62A | 10.25 | PB 63A | 2.40 | PX 63A | 11 1/4 | 8 1/4 | 9 1/4 | 3 |
| 8 | 11.00 | PB 82A | 2.55 | PX 82A | 12.50 | PB 83A | 2.75 | PX 83A | 14 | 8 1/4 | 9 1/4 | 3 |
| 10 | 13.00 | PB 102A | 2.90 | PX 102A | 14.75 | PB 103A | 3.15 | PX 103A | 16 1/4 | 8 1/4 | 9 1/4 | 3 |
| 12 | 15.00 | PB 122A | 3.25 | PX 122A | 17.00 | PB 123A | 3.50 | PX 123A | 19 | 8 1/4 | 9 1/4 | 3 |
| 14 | 17.00 | PB 142A | 3.60 | PX 142A | 19.25 | PB 143A | 3.90 | PX 143A | 21 1/4 | 8 1/4 | 9 1/4 | 3 |
| 16 | 19.00 | PB 162A | 3.95 | PX 162A | 21.50 | PB 163A | 4.25 | PX 163A | 24 | 8 1/4 | 9 1/4 | 3 |
| 18 | 21.00 | PB 182A | 4.30 | PX 182A | 23.75 | PB 183A | 4.65 | PX 183A | 26 1/4 | 8 1/4 | 9 1/4 | 3 |
| 20 | 23.00 | PB 202A | 4.65 | PX 202A | 26.00 | PB 203A | 5.00 | PX 203A | 29 | 8 1/4 | 9 1/4 | 3 |

Prices of Type AA Panel Boards.

With 2 wire branches; for 3-wire branches, take price of equivalent in 2 wire.

| Number of Circuits. | 2-Wire Mains. | | | | 3-Wire Mains. | | | | Dimensions of Panel Board. | | | |
|---------------------|---------------|---------------|----------------------------|---------------|---------------|---------------|----------------------------|---------------|----------------------------|---------------------|---------------------|---------------------|
| | Panel Board. | | Slate Box and Door Lining. | | Panel Board. | | Slate Box and Door Lining. | | Length. | Width 2-Wire Mains. | Width 3-Wire Mains. | Depth of Slate Box. |
| | Price. | Catalogue No. | Price. | Catalogue No. | Price. | Catalogue No. | Price. | Catalogue No. | | | | |
| 2 | \$5.50 | PB 22AA | \$1.50 | PX 22AA | \$6.50 | PB 23AA | \$1.65 | PX 23AA | 9 | 6 | 7 | 3 |
| 3 | 7.00 | PB 32AA | 1.70 | PX 32AA | 8.25 | PB 33AA | 2.00 | PX 33AA | 11 1/4 | 6 | 7 | 3 |
| 4 | 8.50 | PB 42AA | 2.10 | PX 42AA | 10.00 | PB 43AA | 2.30 | PX 43AA | 14 | 6 | 7 | 3 |
| 5 | 10.00 | PB 52AA | 2.40 | PX 52AA | 11.75 | PB 53AA | 2.65 | PX 53AA | 16 1/4 | 6 | 7 | 3 |
| 6 | 11.50 | PB 62AA | 2.70 | PX 62AA | 13.50 | PB 63AA | 2.95 | PX 63AA | 19 | 6 | 7 | 3 |
| 7 | 13.00 | PB 72AA | 3.00 | PX 72AA | 15.25 | PB 73AA | 3.30 | PX 73AA | 21 1/4 | 6 | 7 | 3 |
| 8 | 14.50 | PB 82AA | 3.30 | PX 82AA | 17.00 | PB 83AA | 3.60 | PX 83AA | 24 | 6 | 7 | 3 |
| 9 | 16.00 | PB 92AA | 3.60 | PX 92AA | 18.75 | PB 93AA | 3.95 | PX 93AA | 26 1/4 | 6 | 7 | 3 |
| 10 | 17.50 | PB 102AA | 3.90 | PX 102AA | 20.50 | PB 103AA | 4.25 | PX 103AA | 29 | 6 | 7 | 3 |

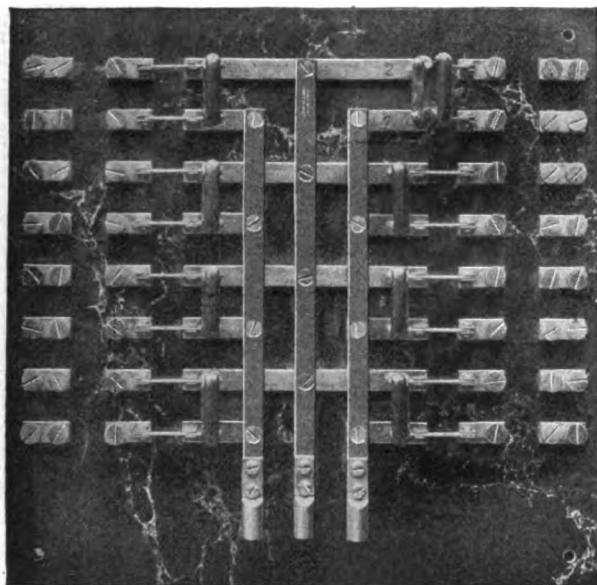
Above prices are for polished finish; for prices of plain finish, deduct 10 per cent from above prices.

Polished panel boards are mounted on marbleized slate. Standard panel boards have no fuse connections or switch in mains; for prices on these and other extras, see page 252

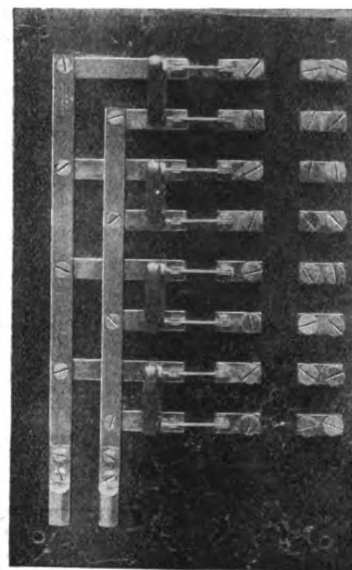
Panel boards will be mounted on any of the foreign or domestic marbles at an extra charge when desired.

ELECTRIC LIGHT AND POWER SUPPLIES.

STANDARD PANEL BOARDS.



Type B.



Type BB.

Prices of Type B Panel Boards.

With 2-wire branches; for 3-wire branches, take price of 2-wire branch panel of twice the number of circuits.

| Number of Circuits. | 2-Wire Mains. | | | | 3-Wire Mains. | | | | Dimensions of Panel Board. | | | |
|---------------------|---------------|----------|----------------------------|----------|---------------|----------|----------------------------|----------|----------------------------|--------------------|--------------------|---------------------|
| | Panel Board. | | Slate Box and Door Lining. | | Panel Board. | | Slate Box and Door Lining. | | Length. | Width. 2-W. Mains. | Width. 3-W. Mains. | Depth of Slate Box. |
| | Price. | Cat. No. | Price. | Cat. No. | Price. | Cat. No. | Price. | Cat. No. | | | | |
| 2 | \$ 8.00 | PB 22B | \$2.50 | PX 22B | \$ 8.75 | PB 23B | \$2.65 | PX 23B | 6½ | 13½ | 14½ | 3½ |
| 4 | 12.25 | PB 42B | 2.95 | PX 42B | 13.25 | PB 43B | 3.10 | PX 43B | 9 | 13½ | 14½ | 3½ |
| 6 | 16.50 | PB 62B | 3.40 | PX 6 B | 17.75 | PB 63B | 3.60 | PX 63B | 11½ | 13½ | 14½ | 3½ |
| 8 | 20.75 | PB 82B | 3.85 | PX 82B | 22.25 | PB 83B | 4.05 | PX 83B | 14 | 13½ | 14½ | 3½ |
| 10 | 25.00 | PB102B | 4.30 | PX102B | 26.75 | PB103B | 4.55 | PX103B | 16½ | 13½ | 14½ | 3½ |
| 12 | 29.25 | PB122B | 4.75 | PX122B | 31.25 | PB123B | 5.00 | PX123B | 19 | 13½ | 14½ | 3½ |
| 14 | 33.50 | PB142B | 5.20 | PX142B | 35.75 | PB143B | 5.50 | PX143B | 21½ | 13½ | 14½ | 3½ |
| 16 | 37.75 | PB162B | 5.65 | PX162B | 40.25 | PB163B | 5.95 | PX163B | 24 | 13½ | 14½ | 3½ |
| 18 | 42.00 | PB182B | 6.10 | PX182B | 44.75 | PB183B | 6.45 | PX183B | 26½ | 13½ | 14½ | 3½ |
| 20 | 46.25 | PB202B | 6.55 | PX202B | 49.25 | PB203B | 6.90 | PX203B | 29 | 13½ | 14½ | 3½ |

Prices of Type BB Panel Boards.

With 2-wire branches; for 3-wire branches, take price of 2-wire branch panel of twice the number of circuits.

| Number of Circuits. | 2-Wire Mains. | | | | 3-Wire Mains. | | | | Dimensions of Panel Board. | | | |
|---------------------|---------------|----------|----------------------------|----------|---------------|----------|----------------------------|----------|----------------------------|--------------------|--------------------|---------------------|
| | Panel Board. | | Slate Box and Door Lining. | | Panel Board. | | Slate Box and Door Lining. | | Length. | Width. 2-W. Mains. | Width. 3-W. Mains. | Depth of Slate Box. |
| | Price. | Cat. No. | Price. | Cat. No. | Price. | Cat. No. | Price. | Cat. No. | | | | |
| 2 | \$ 8.50 | PB 22BB | \$2.00 | PX 22BB | \$ 9.50 | PB 23BB | \$2.15 | PX 23BB | 9 | 8¼ | 9¼ | 3¼ |
| 3 | 11.25 | PB 32BB | 2.40 | PX 32BB | 12.50 | PB 33BB | 2.60 | PX 33BB | 11¼ | 8¼ | 9¼ | 3¼ |
| 4 | 14.00 | PB 42BB | 2.80 | PX 42BB | 15.50 | PB 43BB | 3.00 | PX 43BB | 14 | 8¼ | 9¼ | 3¼ |
| 5 | 16.75 | PB 52BB | 3.20 | PX 52BB | 18.50 | PB 53BB | 3.45 | PX 53BB | 16¼ | 8¼ | 9¼ | 3¼ |
| 6 | 19.50 | PB 62BB | 3.60 | PX 62BB | 21.50 | PB 63BB | 3.85 | PX 63BB | 19 | 8¼ | 9¼ | 3¼ |
| 7 | 22.25 | PB 72BB | 4.00 | PX 72BB | 24.50 | PB 73BB | 4.30 | PX 73BB | 21¼ | 8¼ | 9¼ | 3¼ |
| 8 | 25.00 | PB 82BB | 4.40 | PX 82BB | 27.50 | PB 83BB | 4.70 | PX 83BB | 24 | 8¼ | 9¼ | 3¼ |
| 9 | 27.75 | PB 92BB | 4.80 | PX 92BB | 30.50 | PB 93BB | 5.15 | PX 93BB | 26¼ | 8¼ | 9¼ | 3¼ |
| 10 | 30.50 | PB102BB | 5.20 | PX102BB | 33.50 | PB103BB | 5.55 | PX103BB | 29 | 8¼ | 9¼ | 3¼ |

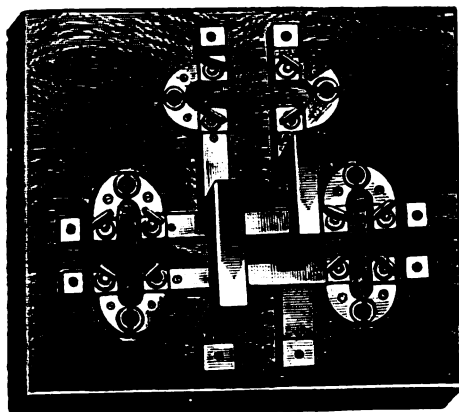
Above prices are for polished finish; for prices of plain finish, deduct 10 per cent. from above prices.

Polished panel boards are mounted on marbleized slate. Standard panel boards have no fuse connections or switch in mains; for prices of these and other extras, see page 252.

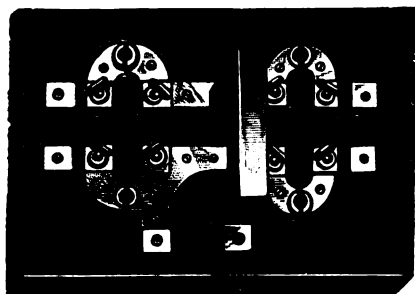
Panel boards will be mounted on any of the foreign or domestic marbles at an extra charge when desired.

ELECTRIC LIGHT AND POWER SUPPLIES.

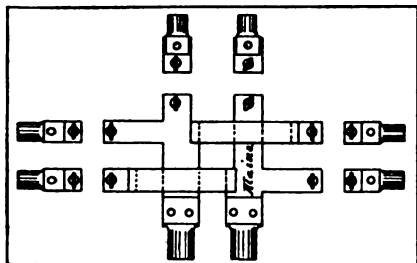
CENTERS OF DISTRIBUTION.



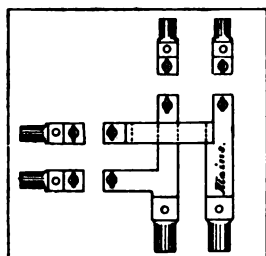
No. 1514-1516.



No 1524.



No. 1554-1558.



No. 1562-1568.

These centers are made of special metal and will carry their rated current without heating, are mounted on plain slate; prices include plugs.

Prices with Detachable Lugs.

| Trade Word. | No. | Description. | Capacity Mains. | Price. |
|-------------|-------|-------------------|--------------------|---------|
| Galaxy. | 1504. | 2 wire, 2 branch. | 400 amperes. | \$16.00 |
| Galeated. | 1506. | 2 " 2 " | 600 " | 22.00 |
| Galega. | 1514. | 2 " 3 " | 400 " | 22.00 |
| Galerite. | 1516. | 2 " 3 " | 600 " | 30.00 |

Prices with Solid Lugs.

| Trade Word. | No. | Description. | Capacity Mains. | Price. |
|-------------|-------|-------------------|--------------------|---------|
| Galenique. | 1524. | 2 wire, 2 branch. | 400 amperes. | \$13.00 |
| Galician. | 1534. | 2 " 3 " | 400 " | 22.00 |

Prices without Plugs with Detachable Lugs.

| Trade Word. | No. | Description. | Capacity Mains. | Price. |
|-------------|-------|-------------------|--------------------|---------|
| Galiot. | 1554. | 2 wire, 3 branch. | 400 amperes. | \$18.00 |
| Gallation. | 1556. | 2 " 3 " | 600 " | 24.00 |
| Galliard. | 1558. | 2 " 3 " | 800 " | 36.00 |
| Gallicism. | 1562. | 2 " 2 " | 250 " | 10.00 |
| Gallipot. | 1564. | 2 " 2 " | 400 " | 15.00 |
| Gallopade. | 1566. | 2 " 2 " | 600 " | 20.00 |
| Galloping. | 1568. | 2 " 2 " | 800 " | 32.00 |

Special centers can be furnished to order, send sketch.

ELECTRIC LIGHT AND POWER SUPPLIES.

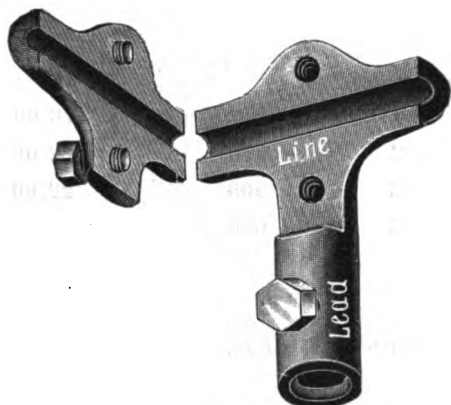


Split.

BUS-BAR
CONNECTORS.

Solid.

| Trade Word. | | | Price. | Trade Word. | | | Price. |
|--------------|--------------------|-----------------|--------|---------------|--------------------|-----------------|--------|
| Readily. | $\frac{1}{4}$ inch | split.....each, | \$0.40 | Readjust. | $\frac{3}{4}$ inch | solid.....each, | \$1.25 |
| Readiness. | $\frac{3}{8}$ " | " "....." | .60 | Readmission. | 1 " | " "....." | 1.50 |
| Reading. | $\frac{1}{2}$ " | " "....." | .80 | Readmit. | $1\frac{1}{4}$ " | " "....." | 2.00 |
| Readingroom. | $\frac{3}{4}$ " | " "....." | 1.00 | Readmittance. | $1\frac{1}{2}$ " | " "....." | 3.00 |



No. 1241-1244.

BUS-BAR TEES.

| Trade Word. | Number. | Size of holes. | Price. |
|-------------|------------|--|--------------|
| Lithoglyph. | 1241. Line | $\frac{3}{8}$ in., lead up to $\frac{3}{8}$ in.. | each, \$0.70 |
| Lithoidal. | 1242. " | $\frac{1}{2}$ " " " " " " " " | .90 |
| Lithology. | 1243. " | $\frac{5}{8}$ " " " " " " " " | 1.20 |
| Lithomancy. | 1244. " | $\frac{3}{4}$ " " " " " " " " | 1.40 |

Leads are cast solid and bored to size.

CYLINDRICAL CONNECTORS.

Tee Connector, Heavy.

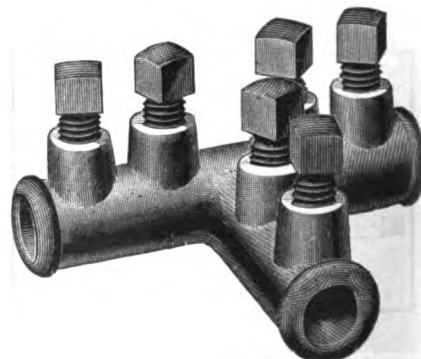
Two set screws.

Elbow connectors made same style as Tees.

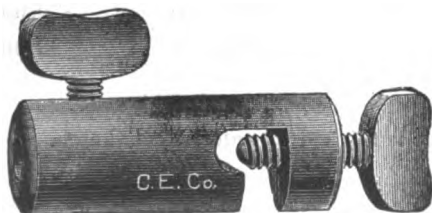
| Trade Word. | Number. | Size of Hole. | Price. |
|-------------|---------|------------------------------------|--------|
| Read. | 1233. | Up to $\frac{1}{2}$ inch.....each, | \$0.80 |
| Lithotomy. | 1234. | " $\frac{3}{4}$ "....." | 1.00 |
| Readable. | 1235. | " $\frac{3}{4}$ "....." | 1.25 |

Elbow Connectors,

| Trade Word. | Number. | Size of hole. | Price. |
|-------------|---------|------------------------------------|--------|
| Reader. | 1223. | Up to $\frac{1}{2}$ inch.....each, | \$0.70 |
| Lithohpage. | 1224. | " $\frac{3}{4}$ "....." | .85 |
| Lithotint. | 1225. | " $\frac{3}{4}$ "....." | .90 |



No. 1233-1235.

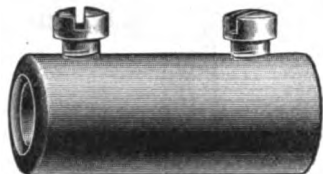


TEE CONNECTOR.

| Trade Word. | Size of wire. | Price. |
|-------------|--|--------|
| Incrust. | No. 4 B. & S. wire and finer.....each, | \$0.35 |

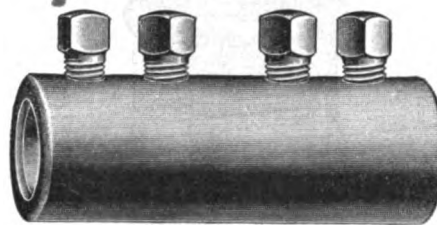
ELECTRIC LIGHT AND POWER SUPPLIES.

CYLINDRICAL CONNECTORS.



2 Screws.

| Trade Word. | | Price. |
|-------------|---|--------------|
| Galloway. | $\frac{1}{4}$ inch dia. for No. 2 wire..... | each, \$0.21 |
| Galuchat. | $\frac{1}{8}$ " " " " 0 "..... | " .24 |
| Gamasbes. | $\frac{1}{8}$ " " " " 00 "..... | " .27 |



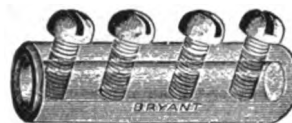
4 Screws.

| Trade Word. | | Price. |
|-------------|---|-------------|
| Gambade. | $\frac{3}{8}$ inch dia. for No. 000 wire..... | each \$0.44 |
| Gambette. | $\frac{3}{8}$ " " " " 0000 "..... | " .60 |
| Gander. | 1 " " " " $\frac{1}{2}$ inch diameter..... | " .75 |
| Ganglion. | 1 $\frac{1}{2}$ " " " " $\frac{3}{4}$ "..... | " .90 |



No. 315

| Trade Word. | No. | For No. | 8 B. & S. gauge wire | Price. |
|-------------|------|----------|----------------------|--------|
| Gautelet. | 315. |  | ..... | \$0.17 |
| Gaoler. | 316. | 10 | ..... | .07 |
| Garcinia. | 317. | 12 or 14 | ..... | .06 |

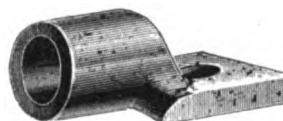


No. 313

| Trade Word. | No. | $\frac{1}{4}$ inch, for No. 6 wire..... | Price. |
|-------------|------|---|--------|
| Garcon. | 313. | | \$0.07 |
| Gardevols. | 314. | $\frac{1}{2}$ " " " 4 "..... | .08 |



WIRE TERMINALS.



| Trade Word. | $\frac{1}{4}$ inch, wire hole..... | Price. |
|--------------|------------------------------------|--------------|
| React. | $\frac{1}{4}$ " " "..... | each, \$0.25 |
| Reaction. | $\frac{3}{8}$ " " "..... | " .40 |
| Reactionary. | $\frac{1}{2}$ " " "..... | " .75 |
| Reactive. | $\frac{3}{4}$ " " "..... | " 1.00 |

| Trade Word. | $\frac{1}{4}$ inch, wire hole..... | Price. |
|-------------|------------------------------------|--------------|
| Litigable. | $\frac{1}{4}$ " " "..... | each, \$1.40 |
| Litigation. | 1 " " "..... | " 1.75 |
| Litales. | 1 $\frac{1}{4}$ " " "..... | " 2.25 |
| Liturgical. | 1 $\frac{1}{2}$ " " "..... | " 3.00 |

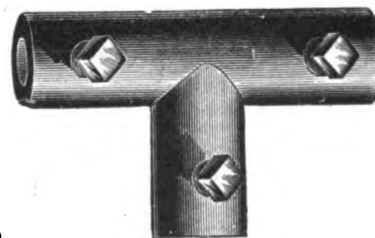


M'INTYRE DYNAMO TERMINALS.

| Trade Word. | Size of wire. | Price. |
|-------------|--------------------------------|----------------------|
| Cohesively. | For No. 0. B. and S. wire..... | per hundred, \$11.00 |
| Coll. | " " 1, "..... | " 9.00 |
| Colled. | " " 2, "..... | " 8.00 |
| Coinage. | " " 3, "..... | " 7.50 |
| Coincide. | " " 4, "..... | " 7.00 |
| Coincident. | " " 6, "..... | " 6.00 |
| Coiner. | " " 8, "..... | " 5.00 |
| Coke. | " " 10, "..... | " 4.50 |
| Cold. | " " 12, "..... | " 4.00 |

TEE CONNECTOR.

| Trade Word. | No. | Size of hole. | Price. |
|-------------|-------|-------------------------------|--------|
| Liturgical. | 1231. | Up to $\frac{1}{4}$ inch..... | \$0.32 |
| Liverwort. | 1232. | " $\frac{3}{8}$ " "..... | .40 |



Nos. 1401-1432.

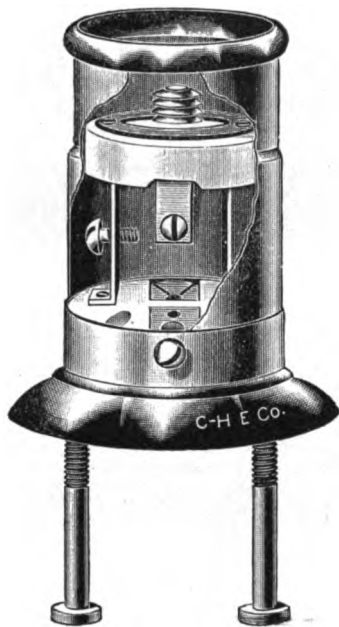
ELBOW CONNECTOR.

Made same style as Tee.

| Trade Word. | No. | Size of hole. | Price. |
|-------------|-------|-------------------------------|--------------|
| Livdity. | 1221. | Up to $\frac{1}{4}$ inch..... | each, \$0.20 |
| Liveryman. | 1222. | " $\frac{3}{8}$ " "..... | " .24 |

ELECTRIC LIGHT AND POWER SUPPLIES.

Switch Board Sockets.



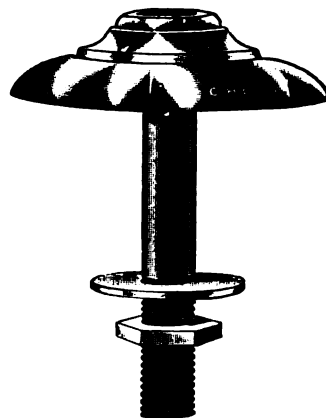
Standard socket, polished brass, with bolts for attaching to board.

| Trade Word. | | Price. |
|----------------|--------------------------|-------------|
| Prepossessing. | T.-H. socket..... | each \$1.10 |
| Prepossession. | Westinghouse socket..... | " 1.20 |
| Preposterous. | Edison socket..... | " 1.40 |

SWITCH BOARD
FITTINGS.

NOTE—When ordering always state thickness of slate used.

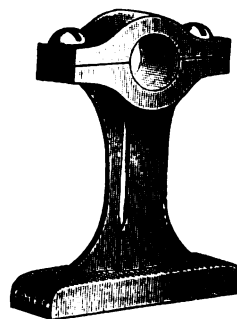
Ornamented Brass Plate.



For attaching lamp bracket to switch board. Made for any thickness of slate.

| Trade Word. | Price. |
|--------------------------|--------|
| Prescription. Each | \$0.70 |

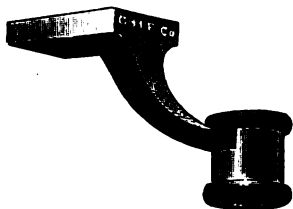
Bus-Bar Standard.



For round bus-bar work. Made of cast copper and drilled to take any size bore.

When ordering give height desired from center of hole, also size of bus-bar to be used.

Brackets for Flat Bus-Bar Work.



Made of pure copper.

The cylindrical end is attached direct to the studs of switch, and flat upper surface carries bus-bar. Serves the double purpose of connection and bus-bar support.

Brass Bolts.

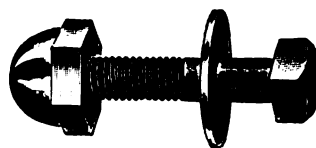


With polished acorn head, for attaching instruments, rheostats, etc., to switch boards.

| Trade Word. | Length. | Diameter. | Price. |
|---------------|-------------------|-------------------------|------------------|
| Presentiment. | 1 inch. | $\frac{1}{4}$ inch..... | per 100, \$16.00 |
| Preserver. | 1 $\frac{1}{4}$ " | $\frac{3}{8}$ " | " 17.00 |
| Preserving. | 1 $\frac{3}{4}$ " | $\frac{1}{2}$ " | " 18.00 |
| Preserved. | 2 $\frac{1}{4}$ " | $\frac{3}{4}$ " | " 19.00 |

Other Lengths.

Iron Bolts.



With polished brass acorn cap, nut and washer. For attaching slate or marble panels to angle iron frames.

| | | Price per 100. | | |
|-------------|-----------------------|---------------------|---------------------|---------------------|
| | | Diameter. | | |
| Trade Word. | Length. | $\frac{1}{8}$ Inch. | $\frac{3}{8}$ Inch. | $\frac{1}{2}$ Inch. |
| Presided. | 1 $\frac{1}{2}$ inch. | \$15.00 | \$18.00 | \$21.00 |
| Presiding. | 2 " | 15.75 | 19.00 | 22.50 |
| Presidency. | 2 $\frac{1}{2}$ " | 16.50 | 20.25 | 23.00 |
| President. | 3 " | 17.25 | 21.00 | 24.75 |

ELECTRIC LIGHT AND POWER SUPPLIES.

SLATE.

For switchboard work, panel boards, boxes, rheostats and switches. This slate is of the highest grade for this work and thoroughly free of metallic substances.

Plain Slate Switchboard Slabs.

| Slab Containing | | Thickness in Inches. | | | | | |
|-----------------|------------------|---|-----------------------------------|-----------------|-----------------|-----------------|--------|
| | | $\frac{3}{8}$, $\frac{1}{2}$, $\frac{3}{4}$ | $\frac{7}{8}$, $\frac{1}{2}$, 1 | 1 $\frac{1}{4}$ | 1 $\frac{1}{2}$ | 1 $\frac{3}{4}$ | 2 |
| Over | 1 to 5 sup'l. ft | \$0.19 | \$0.23 | \$0.28 | \$0.34 | \$0.39 | \$0.44 |
| | 5 to 10 " " | .20 | .24 | .29 | .35 | .40 | .46 |
| | 10 to 15 " " | .23 | .27 | .32 | .38 | .43 | .48 |
| | 15 to 20 " " | | .29 | .35 | .40 | .45 | .51 |
| | 20 to 25 " " | | .33 | .40 | .47 | .53 | .60 |
| | 25 to 30 " " | | .38 | .44 | .51 | .57 | .64 |

Marbleized Switchboards.

| Slab Containing | | Thickness in Inches. | | | | | |
|-----------------|------------------|---|-----------------------------------|-----------------|-----------------|-----------------|--------|
| | | $\frac{3}{8}$, $\frac{1}{2}$, $\frac{3}{4}$ | $\frac{7}{8}$, $\frac{1}{2}$, 1 | 1 $\frac{1}{4}$ | 1 $\frac{1}{2}$ | 1 $\frac{3}{4}$ | 2 |
| Over | 1 to 5 sup'l. ft | \$0.28 | \$0.32 | \$0.39 | \$0.45 | \$0.52 | \$0.57 |
| | 5 to 10 " " | .31 | .35 | .41 | .48 | .55 | .60 |
| | 10 to 15 " " | .36 | .41 | .47 | .53 | .60 | .69 |
| | 15 to 20 " " | | .48 | .55 | .63 | .69 | .83 |
| | 20 to 25 " " | | .55 | .64 | .75 | .85 | 1.00 |
| | 25 to 30 " " | | .61 | .75 | .87 | .99 | 1.13 |

Black enameled slate, one cent less per foot than marbleized.

Switch and Other Small Bases.

$\frac{1}{4}$ in., $\frac{1}{2}$ in., and 1 in. slate.

| Pieces Containing | | Plain. | Black. | Marbleized. |
|-------------------|--------------------------|--------|--------|-------------|
| Over | 25 square inches or less | \$0.10 | \$0.16 | \$0.17 |
| | 25 to 36 inches | .12 | .18 | .19 |
| | 36 to 49 " " | .16 | .22 | .23 |
| | 49 to 64 " " | .19 | .26 | .27 |
| | 64 to 81 " " | .22 | .30 | .32 |
| | 81 to 100 " " | .27 | .36 | .38 |
| | 100 to 122 " " | .30 | .42 | .44 |

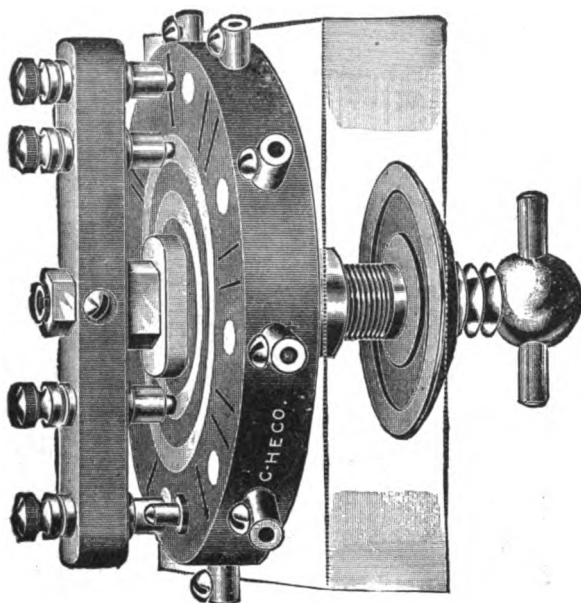
For 1 $\frac{1}{4}$ inch thickness add to above 20 per cent. For 1 $\frac{3}{4}$ inch thickness add to above 35 per cent.

$\frac{3}{8}$ in., $\frac{1}{2}$ in., and $\frac{3}{4}$ in. slate.

| Pieces Containing | | Plain. | Black. | Marbleized. |
|-------------------|--------------------------|--------|--------|-------------|
| Over | 25 square inches or less | \$0.09 | \$0.15 | \$0.16 |
| | 25 to 36 inches | .11 | .17 | .18 |
| | 36 to 49 " " | .15 | .21 | .22 |
| | 49 to 64 " " | .18 | .25 | .26 |
| | 64 to 81 " " | .20 | .28 | .30 |
| | 81 to 100 " " | .25 | .34 | .36 |
| | 100 to 122 " " | .28 | .40 | .42 |

ELECTRIC LIGHT AND POWER SUPPLIES.

CROUSE-HINDS VOLTMETER SWITCH.



Made of the very best insulating material. Any number of circuits may be attached to it and readings taken at any time, as the voltmeter is always connected, though need not be left in circuit. Any circuit may be instantly connected to voltmeter by slight turn of the handle, which carries a pointer, indicating on a dial which circuit is in contact. The dial can be numbered or lettered, as desired, for convenience. All contacts and connections are on back of the slab. The current cannot be reversed through the voltmeter. It is especially designed for switchboard work, and can be attached to any thickness of slab.

Furnished on slate or wood template.

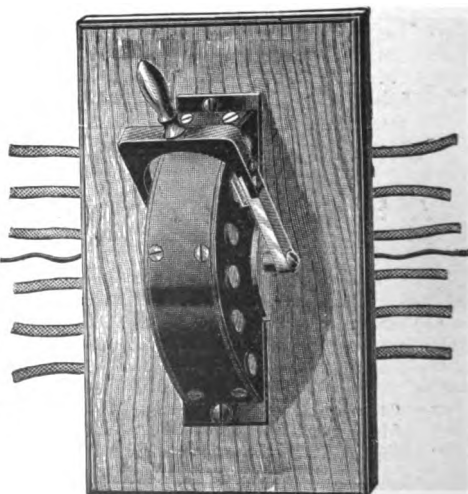
| Trade Word. | | | | Price. |
|-------------|----|----------------------------|-------|---------|
| Garden. | 6 | point, 3 circuit, on slate | ..... | \$14.00 |
| Gargle. | 8 | " 4 " | ..... | 14.40 |
| Gargotage. | 10 | " 5 " | ..... | 14.80 |
| Garishness. | 12 | " 6 " | ..... | 15.20 |
| Garmet. | 14 | " 7 " | ..... | 15.40 |
| Gaselier. | 16 | " 8 " | ..... | 15.68 |
| Gasconade. | 18 | " 9 " | ..... | 16.00 |
| Gashing. | 20 | " 10 " | ..... | 16.40 |
| Gasometer. | 22 | " 11 " | ..... | 16.80 |
| Gaspillage. | 24 | " 12 " | ..... | 17.60 |

CHICAGO VOLTMETER SWITCH.

Made of solid hard rubber and metal.

For connecting one voltmeter with any one of six or more circuits.

| Trade Word. | | | | Price. |
|-------------|----------------|-------|--|---------|
| Quench. | For 4 circuits | ..... |  | \$15.00 |
| Nullify. | " 6 " | ..... |  | 20.00 |
| Quenched. | " 8 " | ..... |  | 22.00 |
| Milkcan | " 10 " | ..... |  | 24.00 |
| Quenching. | " 12 " | ..... |  | 26.00 |
| Query. | " 16 " | ..... |  | 30.00 |



ELECTRIC LIGHT AND POWER SUPPLIES.

STRAIGHT WOVE PHOSPHOR BRONZE DYNAMO BRUSHES.



| Trade Word. | Thickness. Inches. | Width. Inches. | Length. Inches. | Price. Each. | Extra. Per In. Cents. | Trade Word. | Thickness. Inches. | Width. Inches. | Length. Inches. | Price. Each. | Extra. Per In. Cents. |
|---------------|-----------------------|-------------------|--------------------|-----------------|-----------------------------|-----------------|-----------------------|-------------------|--------------------|-----------------|-----------------------------|
| Rainbow..... | $\frac{1}{8}$ | $\frac{1}{4}$ | 6 | \$0.65 | 8 | Rambling..... | $\frac{3}{8}$ | $1\frac{1}{4}$ | 8 | \$2.00 | 20 |
| Rainy..... | $\frac{1}{8}$ | $\frac{3}{8}$ | 6 | .70 | 8 | Rambler..... | $\frac{1}{8}$ | $\frac{1}{8}$ | 8 | 2.20 | 20 |
| Raise..... | $\frac{1}{8}$ | 1 | 6 | .85 | 10 | Rambled..... | $\frac{3}{8}$ | $\frac{1}{8}$ | 8 | 2.35 | 20 |
| Raising..... | $\frac{1}{8}$ | $\frac{1}{4}$ | 6 | .70 | 8 | Ramify..... | $\frac{3}{8}$ | $2\frac{1}{8}$ | 8 | 2.50 | 20 |
| Raisin..... | $\frac{1}{4}$ | $\frac{1}{4}$ | 6 | .90 | 10 | Rammer..... | $\frac{1}{8}$ | $1\frac{1}{4}$ | 8 | 1.90 | 20 |
| Rajah..... | $\frac{1}{4}$ | $\frac{3}{8}$ | 6 | .95 | 10 | Rammish..... | $\frac{1}{8}$ | $1\frac{1}{2}$ | 8 | 2.20 | 20 |
| Rake..... | $\frac{1}{4}$ | 1 | 6 | 1.00 | 10 | Ramose..... | $\frac{1}{8}$ | $1\frac{1}{8}$ | 8 | 2.40 | 25 |
| Raked..... | $\frac{1}{4}$ | $1\frac{1}{4}$ | 7 | 1.30 | 16 | Raming..... | $\frac{1}{8}$ | $1\frac{1}{8}$ | 8 | 2.55 | 25 |
| Raking..... | $\frac{1}{4}$ | $1\frac{1}{4}$ | 8 | 1.45 | 16 | Rampage..... | $\frac{1}{8}$ | 2 | 8 | 2.70 | 25 |
| Rakish..... | $\frac{1}{4}$ | $1\frac{1}{4}$ | 8 | 1.70 | 16 | Rampancy..... | $\frac{1}{8}$ | $1\frac{1}{8}$ | 8 | 1.90 | 20 |
| Rally..... | $\frac{1}{8}$ | 1 | 8 | 1.40 | 16 | Rampart..... | $\frac{1}{4}$ | $1\frac{1}{8}$ | 8 | 2.30 | 20 |
| Railed..... | $\frac{1}{8}$ | $1\frac{1}{4}$ | 8 | 1.60 | 16 | Ramrod..... | $\frac{1}{4}$ | $1\frac{1}{8}$ | 8 | 2.50 | 25 |
| Railing..... | $\frac{1}{8}$ | $1\frac{1}{4}$ | 8 | 1.80 | 16 | Ran..... | $\frac{1}{4}$ | $1\frac{1}{8}$ | 8 | 2.70 | 30 |
| Rallies..... | $\frac{1}{8}$ | $1\frac{1}{4}$ | 8 | 2.00 | 20 | Ranch..... | $\frac{1}{4}$ | $1\frac{1}{8}$ | 8 | 2.90 | 30 |
| Rally..... | $\frac{1}{8}$ | $1\frac{1}{4}$ | 8 | 2.10 | 20 | Rancid..... | $\frac{1}{4}$ | $2\frac{1}{4}$ | 8 | 3.25 | 30 |
| Ram..... | $\frac{1}{8}$ | $1\frac{1}{4}$ | 8 | 1.60 | 16 | Rancidity..... | $\frac{1}{4}$ | $1\frac{1}{8}$ | 8 | 3.00 | 30 |
| Rammed..... | $\frac{1}{8}$ | $1\frac{1}{4}$ | 8 | 1.80 | 16 | Rancidness..... | $\frac{1}{4}$ | 2 | 8 | 3.25 | 30 |
| Ramming..... | $\frac{1}{8}$ | $1\frac{1}{4}$ | 8 | 1.90 | 16 | | | | | | |
| Mucosity..... | $\frac{1}{8}$ | $1\frac{1}{4}$ | 8 | | | | | | | | |

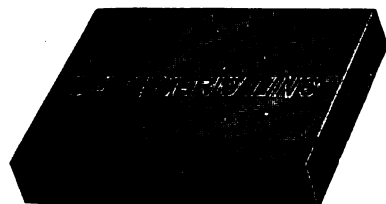
"EUREKA" DYNAMO BRUSHES.

Diagonal, all copper.

| Trade Word. | Thick- ness | Length | Width. | | | | | | | | | | | |
|-----------------|----------------|--------|----------------------|----------------------|----------------------|----------|-----------------------|-----------------------|-----------------------|----------|-----------------------|-----------------------|-----------------------|----------|
| | | | In. $\frac{1}{4}$ | In. $\frac{3}{8}$ | In. $\frac{1}{2}$ | In. 1 | In. $1\frac{1}{4}$ | In. $1\frac{1}{2}$ | In. $1\frac{3}{4}$ | In. 2 | In. $2\frac{1}{4}$ | In. $2\frac{1}{2}$ | In. $2\frac{3}{4}$ | In. 3 |
| Muckle..... | $\frac{1}{8}$ | 7 | \$.90 | \$1.12 | \$1.25 | \$1.35 | \$1.45 | \$1.50 | \$1.55 | \$1.60 | \$1.70 | \$1.75 | \$1.85 | \$1.95 |
| Gastritis..... | $\frac{1}{8}$ | 7 | 1.00 | 1.25 | 1.43 | 1.55 | 1.65 | 1.70 | 1.75 | 1.80 | 1.85 | 1.90 | 2.00 | 2.25 |
| Gastronome..... | $\frac{1}{8}$ | 7 | | 1.25 | 1.40 | 1.45 | 1.50 | 1.65 | 1.85 | 1.95 | 2.15 | 2.30 | 2.45 | 2.65 |
| Gastropod..... | $\frac{1}{8}$ | 8 | | 1.40 | 1.60 | 1.65 | 1.75 | 1.85 | 2.10 | 2.20 | 2.45 | 2.60 | 2.80 | 3.00 |
| Gateau..... | $\frac{1}{8}$ | 7 | | | 1.50 | 1.70 | 1.85 | 2.05 | 2.25 | 2.45 | 2.65 | 2.85 | 3.05 | 3.30 |
| Gatehouse..... | $\frac{1}{8}$ | 7 | | | 1.65 | 1.85 | 2.10 | 2.30 | 2.55 | 2.75 | 3.00 | 3.25 | 3.50 | 3.75 |
| Gateway..... | $\frac{1}{8}$ | 7 | | | 1.85 | 2.05 | 2.20 | 2.45 | 2.70 | 2.95 | 3.20 | 3.45 | 3.70 | 3.90 |
| Gathering..... | $\frac{1}{8}$ | 7 | | | 2.20 | 2.50 | | 2.75 | 3.05 | 3.35 | 3.65 | 3.95 | 4.20 | 4.50 |
| Gatiller..... | $\frac{1}{8}$ | 7 | | | | | | 2.80 | 3.15 | 3.45 | 3.75 | 4.00 | 4.30 | 4.60 |
| Gaucherie..... | $\frac{1}{8}$ | 7 | | | | | | 3.15 | 3.55 | 3.90 | 4.25 | 4.55 | 4.90 | 5.25 |
| Gauging..... | $\frac{1}{8}$ | 7 | | | | | | | 3.60 | 3.95 | 4.25 | 4.60 | 4.90 | 5.30 |
| Gaulish..... | $\frac{1}{8}$ | 8 | | | | | | | 4.05 | 4.50 | 4.85 | 5.25 | 5.60 | 6.00 |
| Gavelet..... | $\frac{1}{8}$ | 7 | | | | | | | | 4.90 | 5.30 | 5.70 | 6.10 | 6.50 |
| Gayness..... | $\frac{1}{8}$ | 8 | | | | | | | | 5.60 | 6.00 | 6.50 | 7.00 | 7.50 |

CARBON BRUSHES.

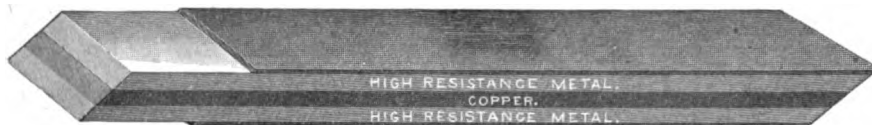
We list only a few of the many different sizes, but are prepared to furnish brushes of any size.



| Trade Word. | Size. | In 1000 lots. | Trade Word. | Size. | In 1000 lots. |
|-------------|---------------|---|-------------|----------------|---|
| Random. | T.-H. No. 3. | 1 $\frac{1}{2}$ x $\frac{1}{4}$ x $\frac{1}{4}$ | Rankness. | T.-H. No. 22. | 3 $\frac{1}{2}$ x $\frac{1}{2}$ x $\frac{1}{2}$ |
| Rancorous. | T.-H. No. 2. | 7 x $\frac{1}{4}$ x $\frac{1}{4}$ | Ransom. | Edison No. 6. | 2 x $\frac{1}{4}$ x $\frac{1}{4}$ |
| Rancor. | T.-H. No. 1. | 7 x $\frac{1}{4}$ x $\frac{1}{4}$ | Ransomed. | Edison No. 10. | 1 $\frac{1}{2}$ x $\frac{1}{4}$ x $\frac{1}{4}$ |
| Range. | T.-H. No. 4. | 1 $\frac{1}{2}$ x $\frac{1}{4}$ x $\frac{1}{4}$ | Ransomer. | Edison No. 14. | 1 $\frac{1}{2}$ x $\frac{1}{4}$ x $\frac{1}{4}$ |
| Ranger. | T.-H. No. 8. | 3 $\frac{1}{2}$ x $\frac{1}{4}$ x $\frac{1}{4}$ | Ransoming. | Edison No. 12. | 2 $\frac{1}{2}$ x $\frac{1}{4}$ x $\frac{1}{4}$ |
| Ranker. | T.-H. No. 12. | 2 $\frac{1}{2}$ x $\frac{1}{4}$ x $\frac{1}{4}$ | Rant. | Edison No. 16. | 1 $\frac{1}{2}$ x $\frac{1}{4}$ x $\frac{1}{4}$ |
| Rankle. | T.-H. No. 19. | 2 $\frac{1}{2}$ x $\frac{1}{4}$ x $\frac{1}{4}$ | Ranted. | 150 K. W. | 2 $\frac{1}{2}$ x $\frac{1}{4}$ x $\frac{1}{4}$ |
| Rankest. | T.-H. No. 13. | 3 $\frac{1}{2}$ x $\frac{1}{4}$ x $\frac{1}{4}$ | Ranting. | Sprague No. 6. | 2 $\frac{1}{2}$ x $\frac{1}{4}$ x $\frac{1}{4}$ |
| Rankly. | T.-H. No. 15. | 1 $\frac{1}{2}$ x $\frac{1}{4}$ x $\frac{1}{4}$ | Rap. | G. E. 800. | 2 $\frac{1}{2}$ x $\frac{1}{4}$ x $\frac{1}{4}$ |
| Rank. | T.-H. No. 10. | 3 x $\frac{1}{4}$ x $\frac{1}{4}$ | Rapped. | W. P. 50 B. | 2 $\frac{1}{2}$ x $\frac{1}{4}$ x $\frac{1}{4}$ |
| Ransack. | T.-H. No. 30. | 3 $\frac{1}{2}$ x $\frac{1}{4}$ x $\frac{1}{4}$ | Rapping. | W. P. 50. | 2 $\frac{1}{2}$ x $\frac{1}{4}$ x $\frac{1}{4}$ |

ELECTRIC LIGHT AND POWER SUPPLIES.

THE WIRT DYNAMO BRUSH.



Regular Stock Sizes of Wirt Brushes.

See special list for other sizes.

| Trade Word. | Style. | Width. | Thickness. | Length. | Price. |
|------------------|--------|--------|------------|---------|--------|
| Rapacious..... | A | 1-2 | 5-16 | 8 | \$0 90 |
| Rapacity..... | M | 3-4 | 5-16 | 8 | 1 05 |
| Rapid..... | R | 7-8 | 5-16 | 8 | 1 15 |
| Rapidity..... | B | 1 | 5-16 | 8 | 1 25 |
| Rapidly..... | N | 1 | 3-8 | 8 | 1 45 |
| Rapidness..... | F | 1-3/4 | 1-4 | 8 | 1 15 |
| Raiper..... | I | 1-3/4 | 5-16 | 8 | 1 40 |
| Rapine..... | O | 1-3/4 | 3-8 | 8 | 1 65 |
| Rapparee..... | D | 3-8 | 3-8 | 10 | 2 00 |
| Rapper..... | J | 1-3/8 | 1-2 | 10 | 2 60 |
| Rapt..... | P | 1-3/8 | 5-16 | 8 | 1 55 |
| Rapture..... | Q | 1-3/4 | 5-16 | 8 | 1 70 |
| Rapturous..... | L | 1-7/8 | 5-16 | 10 | 2 05 |
| Rare..... | C | 1-7/8 | 3-8 | 10 | 2 45 |
| Rarefaction..... | K | 1-3/8 | 1-2 | 10 | 3 25 |
| Rarefiable..... | G | 1-3/8 | 7-16 | 10 | 2 85 |
| Rarefy..... | E | 1-3/8 | 5-8 | 12 | 4 60 |

Price List of Wirt Brushes.

| Thickness in Inches | Length in Inches | Width in Inches. | | | | | | | | | | | | | |
|---------------------------|------------------------|------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| | | 3/4 | 1 | 1 1/4 | 1 1/2 | 1 3/4 | 1 7/8 | 2 | 2 1/4 | 2 1/2 | 2 3/4 | 3 | 3 1/4 | 3 1/2 | 4 |
| 3-16 | 8 | \$0 55 | \$0 60 | \$0 65 | \$0 70 | \$0 75 | \$0 80 | \$0 85 | \$0 90 | \$0 95 | \$1 00 | \$1 05 | \$1 10 | \$1 15 | \$1 20 |
| | 10 | 65 | 70 | 75 | 80 | 85 | 90 | 95 | 1 00 | 1 05 | 1 10 | 1 15 | 1 20 | 1 25 | 1 30 |
| | 12 | 70 | 75 | 80 | 85 | 90 | 95 | 1 00 | 1 05 | 1 10 | 1 15 | 1 20 | 1 25 | 1 30 | 1 35 |
| 1-4 | 8 | 75 | 80 | 85 | 90 | 95 | 1 00 | 1 05 | 1 10 | 1 15 | 1 20 | 1 25 | 1 30 | 1 35 | 1 40 |
| | 10 | 80 | 85 | 90 | 95 | 1 00 | 1 05 | 1 10 | 1 15 | 1 20 | 1 25 | 1 30 | 1 35 | 1 40 | 1 45 |
| | 12 | 85 | 90 | 95 | 1 00 | 1 05 | 1 10 | 1 15 | 1 20 | 1 25 | 1 30 | 1 35 | 1 40 | 1 45 | 1 50 |
| 5-16 | 8 | * 90 | 1 00 | * 1 05 | 1 15 | * 1 25 | 1 35 | * 1 40 | 1 45 | * 1 55 | 1 60 | * 1 70 | 1 80 | 1 85 | 1 90 |
| | 10 | 1 00 | 1 10 | 1 20 | 1 30 | 1 40 | 1 50 | 1 60 | 1 70 | 1 80 | 1 90 | 2 00 | 2 10 | 2 20 | 2 30 |
| | 12 | 1 05 | 1 20 | 1 30 | 1 40 | 1 55 | 1 65 | 1 75 | 1 90 | 2 00 | 2 15 | 2 25 | 2 35 | 2 45 | 2 55 |
| 3-8 | 8 | 1 10 | 1 15 | 1 25 | 1 35 | * 1 45 | 1 55 | * 1 65 | 1 75 | 1 80 | 1 90 | 2 00 | 2 10 | 2 20 | 2 30 |
| | 10 | 1 15 | 1 30 | 1 40 | 1 50 | 1 65 | 1 75 | 1 85 | * 2 00 | 2 10 | 2 20 | 2 35 | * 2 45 | 2 60 | 2 70 |
| | 12 | 1 20 | 1 40 | 1 55 | 1 70 | 1 85 | 1 95 | 2 10 | 2 25 | 2 40 | 2 50 | 2 65 | 2 80 | 2 95 | 3 10 |
| 7-16 | 8 | 1 25 | 1 35 | 1 45 | 1 55 | 1 70 | 1 80 | 1 90 | 2 00 | 2 10 | 2 20 | 2 35 | 2 45 | 2 55 | 2 65 |
| | 10 | 1 35 | 1 50 | 1 60 | 1 75 | 1 90 | 2 05 | 2 15 | 2 30 | 2 45 | 2 60 | 2 70 | * 2 85 | 3 00 | 3 15 |
| | 12 | 1 45 | 1 60 | 1 80 | 1 95 | 2 10 | 2 30 | 2 45 | 2 60 | 2 75 | 2 90 | 3 10 | 3 25 | 3 40 | 3 55 |
| 1-2 | 8 | 1 40 | 1 50 | 1 65 | 1 80 | 1 90 | 2 0 | 2 15 | 2 30 | 2 40 | 2 50 | 2 65 | 2 80 | 2 90 | 3 00 |
| | 10 | 1 60 | 1 70 | 1 85 | 2 00 | 2 15 | 2 30 | 2 45 | * 2 60 | 2 80 | 2 95 | 3 10 | * 3 25 | 3 40 | 3 50 |
| | 12 | 1 65 | 1 85 | 2 00 | 2 20 | 2 40 | 2 60 | 2 80 | 2 95 | 3 15 | 3 35 | 3 50 | 3 70 | 3 90 | 4 10 |
| 5-8 | 8 | 1 70 | 1 90 | 2 05 | 2 20 | 2 35 | 2 50 | 2 65 | 2 80 | 3 00 | 3 15 | 3 30 | 3 45 | 3 60 | 3 75 |
| | 10 | 1 90 | 2 05 | 2 25 | 2 45 | 2 65 | 2 85 | 3 05 | 3 25 | 3 45 | 3 65 | 3 85 | 4 05 | 4 25 | 4 45 |
| | 12 | 2 05 | 2 25 | 2 50 | 2 75 | 3 00 | 3 20 | 3 45 | 3 70 | 3 90 | 4 15 | 4 40 | * 4 60 | 4 85 | 5 10 |

Thickness is given for the middle of the brush.

For price of 6-inch brush, subtract from 8-inch difference between 8 and 10.

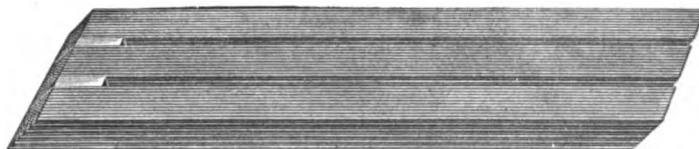
3-16 price will be charged for any size under that thickness.

The following is a list of the principal sizes of copper brushes used on Edison or General Electric Bi-Polar Dynamos with reference to the corresponding sizes of Wirt brushes. It should be noticed that the regular wire brushes are used with a brass "trough," which is removed when the Wirt brush is placed in the brush holder. The removal of this trough allows a certain increase of dimensions, which makes the Wirt brushes for these machines slightly larger.

| K. W. | Edison No. | Thickness. | Width. | Length. | Use Wirt Brushes. |
|------------|---------------|------------|--------|---------|-------------------|
| 3 | 1 | 7-32 | 27-64 | 7 | A |
| 6, 9, 12 | 2, 3, 4 | 7-32 | 15-16 | 7 | B |
| 15, 20 | 6 and 8 | 11-32 | 13-16 | 8 | C |
| 25, 30, 45 | 10, 12 and 16 | 11-32 | 13-16 | 8 | D |
| | 20 Old | 17-32 | 13-16 | 9 | E |
| 60 | 20 New | 5-16 | 13-16 | 9 | F |
| 100 | 32 | 5-8 | 13-16 | 12 | G |
| 175 | 60 | 5-8 | 13-16 | 12 | H |

ELECTRIC LIGHT AND POWER SUPPLIES.

EDISON WIRE BRUSHES.



| Trade Word. | Kilo-Watts. | Capacity in 16 C. P. Lamps. | Price Each. |
|----------------|-------------|--------------------------------|-------------|
| Jugular..... | .500 | 10 | \$0.20 |
| Jugulate..... | .750 | 15 | .25 |
| Juice..... | 1.5 | 30 | .25 |
| Juiceless..... | 3. | 55 | .30 |
| Juiciness..... | 6. | 110 | .70 |
| Juicy..... | 9. | 150 | .70 |
| Julep..... | 12. | 210 | .70 |
| Julian..... | 15. | 270 | 1.80 |
| Jumble..... | 20. | 360 | 1.80 |
| Jumbled..... | 25. | 450 | 1.80 |
| Jumbler..... | 30. | 540 | 1.80 |
| Jumblng..... | 45. | 810 | 1.80 |
| Jump..... | 60. | 1075 | 2.25 |
| Jumped..... | 100. | 1670 | 4.00 |
| Jumper..... | 175. | 2800 | 4.05 |

ROLLED TEMPERED BRUSH COPPER.

Is especially adapted for springs, switches, etc., on account of its flexibility and durability. All sizes are kept in stock. Cut to any width without extra charge.

| | | | |
|-------------------------|-----------------|-------------------|-----------------|
| No. 10 and thicker..... | per lb., \$0.80 | No. 20 to 30..... | per lb., \$1.10 |
| No. 12 to 16..... | .90 | No. 30 to 36..... | " 1.20 |
| No. 16 to 20..... | 1.00 | No. 36 to 40..... | " 1.40 |

BRUSH COPPER.

Hard rolled.

| Numbers. B. & S. Gauge. | $\frac{1}{2}$ Inch and Narrower. | Over $\frac{1}{2}$ Inch to 1 Inch. | Over 1 Inch to $1\frac{1}{4}$ Inch. | Over $1\frac{1}{4}$ Inch to 2 Inch. | Over 2 Inch to $2\frac{1}{4}$ Inch. | Over $2\frac{1}{4}$ Inches. |
|----------------------------|-------------------------------------|---------------------------------------|--|--|--|-----------------------------|
| 23..... | \$0.37 $\frac{1}{2}$ | \$0.37 | \$0.36 $\frac{1}{2}$ | \$0.36 $\frac{1}{2}$ | \$0.36 $\frac{1}{2}$ | \$0.36 |
| 24..... | .37 $\frac{1}{2}$ | .37 | .36 $\frac{1}{2}$ | .36 $\frac{1}{2}$ | .36 $\frac{1}{2}$ | .36 |
| 25..... | .38 $\frac{1}{2}$ | .38 | .37 $\frac{1}{2}$ | .37 $\frac{1}{2}$ | .37 $\frac{1}{2}$ | .37 |
| 26..... | .38 $\frac{1}{2}$ | .38 | .37 $\frac{1}{2}$ | .37 $\frac{1}{2}$ | .37 $\frac{1}{2}$ | .37 |
| 27..... | .40 | .39 $\frac{1}{2}$ | .39 | .39 | .39 | .38 |
| 28..... | .40 | .39 $\frac{1}{2}$ | .39 | .39 | .39 | .38 |
| 29..... | .41 | .40 $\frac{1}{2}$ | .40 | .40 | .40 | .39 |
| 30..... | .41 | .40 $\frac{1}{2}$ | .40 | .40 | .40 | .39 |
| 31..... | .43 | .42 | .41 $\frac{1}{2}$ | .41 $\frac{1}{2}$ | .41 $\frac{1}{2}$ | .40 |
| 32..... | .43 $\frac{1}{2}$ | .42 $\frac{1}{2}$ | .41 $\frac{1}{2}$ | .41 $\frac{1}{2}$ | .41 $\frac{1}{2}$ | .40 |
| 33..... | .44 $\frac{1}{2}$ | .43 $\frac{1}{2}$ | .42 $\frac{1}{2}$ | .42 $\frac{1}{2}$ | .42 $\frac{1}{2}$ | .41 |
| 34..... | .44 $\frac{1}{2}$ | .43 $\frac{1}{2}$ | .42 $\frac{1}{2}$ | .42 $\frac{1}{2}$ | .42 $\frac{1}{2}$ | .41 |
| 35..... | .46 | .45 | .44 | .44 | .44 | .42 |
| 36..... | .47 | .46 | .45 | .45 | .45 | .43 |
| 37..... | .50 | .49 | .46 | .45 $\frac{1}{2}$ | .45 | .43 |
| 38..... | .53 | .49 $\frac{1}{2}$ | .48 | .47 $\frac{1}{2}$ | .47 | .44 |
| 39..... | .56 | .51 | .49 $\frac{1}{2}$ | .48 | .47 | .44 |
| 40..... | .60 | .53 | .50 | .49 | .48 | .45 |

ELECTRIC LIGHT AND POWER SUPPLIES.

THOMSON-HOUSTON DYNAMO BRUSHES.

For arc machine.



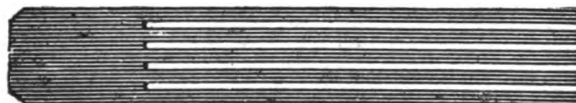
| Trade Word. | | Price. |
|-------------|--------------------------------------|--------|
| Rattan. | Of tempered copper.....per set of 4, | \$1.00 |
| Ratteen. | “ hard rolled copper..... “ “ “ 4, | .37½ |

THOMSON-HOUSTON DYNAMO BRUSHES.

For incandescent machine.

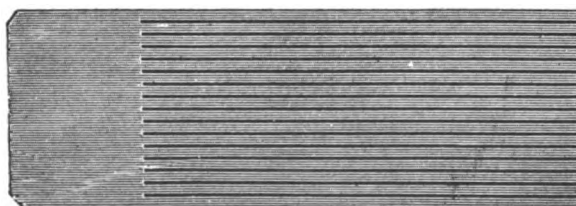
| Trade Word. | | Price. |
|-------------|------------|--------|
| Rattle. | No. 1..... | \$1.50 |
| Rattled. | “ 2..... | 2.00 |
| Rattling. | “ 3..... | 3.50 |

BRUSH ARC BRUSHES.



| Trade Word. | | Price. |
|-------------|---|--------|
| Raucity. | Made of tempered copper for No. 10 and No. 11 machines.....per set of 12, | \$2.00 |
| Raucous. | “ “ “ copper, with 4, 5, 6, 7 or 8 fingers..... “ “ “ 4, | 1.34 |
| Ravage. | “ “ hard rolled copper..... “ “ “ 4, | .67 |

BRUSH INCANDESCENT BRUSHES.



| Trade Word. | | Price. |
|-------------|--|--------|
| Ravaged. | 4½ inch wide, 16 fingers.....per set of 4, | \$2.66 |

ELECTRIC LIGHT AND POWER SUPPLIES.

MISCELLANEOUS COPPER LEAF DYNAMO BRUSHES.

| Trade Word. | | Width. | Thickness. | Length. | Number of Brushes to Set. | Price Per Set. |
|---------------|--------------------|-----------------------|------------------|--------------------|------------------------------|-------------------|
| Rareness. | American..... | 2 $\frac{5}{16}$ inch | ... inch | ... inch | 4 | \$6.40 |
| Rarity. | Ball..... | 1 $\frac{1}{8}$ " | $\frac{3}{8}$ " | 8 " | 4 | 3.00 |
| Rascal. | Excelsior..... | 1 " | $\frac{1}{8}$ " | 9 " | 4 | 1.50 |
| Rascality. | Jenney..... | 1 " | $\frac{3}{16}$ " | 9 " | 4 | 3.50 |
| Rascally. | Jenney..... | 1 $\frac{1}{2}$ " | $\frac{1}{8}$ " | 7 " | 4 | 3.00 |
| Rash. | Mather..... | 1 $\frac{1}{2}$ " | $\frac{1}{8}$ " | 8 " | 4 | 5.00 |
| Rashest. | Mather..... | 1 " | $\frac{5}{16}$ " | 8 " | 4 | 3.50 |
| Rashly. | National..... | $\frac{7}{8}$ " | $\frac{3}{8}$ " | 8 " | 4 | 2.80 |
| Rashness. | National..... | 1 $\frac{1}{2}$ " | $\frac{1}{8}$ " | 4 " | 4 | 4.80 |
| Rasp. | Sperry..... | 2 " | $\frac{1}{4}$ " | 8 " | 2 | 4.00 |
| Rasped. | Schuyler..... | 1 $\frac{1}{2}$ " | $\frac{1}{8}$ " | 9 " | 8 | 4.00 |
| Rasping. | Schuyler..... | 1 " | $\frac{1}{8}$ " | 15 " | 4 | 2.00 |
| Raspatory. | Standard..... | 2 " | $\frac{1}{8}$ " | 8 " | 4 | 4.00 |
| Raspberry. | Standard..... | 1 $\frac{1}{2}$ " | $\frac{3}{8}$ " | 8 " | 4 | 4.00 |
| Ratan. | United States..... | 3 " | $\frac{1}{8}$ " | 6 " | 4 | 6.40 |
| Ratch. | United States..... | 1 $\frac{1}{8}$ " | $\frac{1}{8}$ " | 8 " | 4 | 3.50 |
| Ratchet. | United States..... | 1 $\frac{1}{8}$ " | $\frac{1}{8}$ " | 5 " | 4 | 2.50 |
| Rate. | Wood..... | 2 " | $\frac{1}{8}$ " | 9 " | 4 | 4.00 |
| Rated. | Wood..... | 2 " | $\frac{1}{8}$ " | 10 $\frac{3}{4}$ " | 4 | 4.00 |
| Rating. | Wood..... | 1 $\frac{1}{2}$ " | $\frac{1}{8}$ " | 12 " | 4 | 3.60 |
| Rather. | Wood..... | 2 $\frac{3}{8}$ " | $\frac{1}{8}$ " | 12 " | 4 | 5.50 |
| Ratification. | Wood..... | 2 $\frac{1}{8}$ " | $\frac{1}{8}$ " | 12 " | 4 | 5.00 |

Any size brush made to order.

WESTINGHOUSE BRUSHES.

| Trade Word. | | | | | |
|----------------|---------------|---------------------------------|---------------|--------|--|
| Ratified. | No. 1 A. C. | 1 $\frac{1}{8}$ -inch wide..... | per set of 4, | \$3.00 | |
| Ratify. | No. 2 A. C. | $\frac{1}{8}$ " | " 2, | 1.80 | |
| Rates. | No. 2 exciter | $\frac{1}{8}$ " | " 4, | 1.20 | |
| Rational. | No. 3 exciter | $\frac{1}{8}$ " | " 4, | 1.60 | |
| Rationalism. | No. 4 exciter | $\frac{3}{8}$ " | " 4, | 2.40 | |
| Rationalist. | No. 12 D. C. | 1 $\frac{3}{8}$ " | " 2, | 3.00 | |
| Rationalistic. | No. 18 D. C. | 2 $\frac{5}{8}$ " | " 2, | 5.00 | |
| Rationality. | Maxim, | 2 $\frac{1}{8}$ " | " 2, | 1.80 | |
| Rationally. | 20-light | 1 $\frac{3}{8}$ " | " 2, | 1.00 | |

WESTERN BRUSHES.

| Trade Word. | | | |
|-------------|----------------------|---------------|--------|
| Ratline. | 4 prong brushes..... | per set of 4, | \$1.00 |
| Ratoon. | Wire brushes..... | " " | .50 |

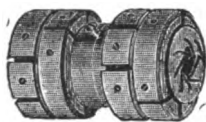
We also manufacture a brush called "Western Leaf" brush. It is composed of four strips of thin copper and is adjusted under the stiff brush to come in contact with the commutator. It works more satisfactorily than the standard brush.

| Trade Word. | | | |
|-------------|------------|---------------|--------|
| Ratsbane. | Price..... | per set of 4, | \$1.00 |

ELECTRIC LIGHT AND POWER SUPPLIES.

TEMPERED COPPER SEGMENTS.

Brush Arc Segments.



| Trade Word | | Price. |
|------------|--|------------------|
| Ravaging. | All copper segments No. 7, D7 or E8..... | per set, \$ 3.60 |
| Ravager. | " " " No. 8..... | " 7.00 |
| Rave. | Copper segments No. 7, for wood blocks..... | " 2.00 |
| Raved. | Wood blocks for No. 7 copper segments..... | " 1.00 |
| Raving | Copper segments F5, G4, J15, 3, 4 or 5 plater..... | " 6.75 |
| Ravel. | " " No. 7½, for wood blocks..... | " 5.00 |
| Raveled. | Wood blocks for No. 7½ copper segments..... | " 2.00 |
| Raveling. | Copper segments No. 8, for wood blocks..... | " 5.00 |
| Ravelin. | Wood blocks for No. 8 copper segments..... | " 2.00 |
| Raven. | Copper segments No. 10 or 11, for wood blocks..... | " 6.00 |
| Ravening. | Wood blocks for No. 10 or 11 copper segments..... | " 5.00 |
| Ravenous. | Copper segments, J18 and J20..... | " 13.33 |

Western Arc Light Segments.

| Trade Word. | | Price. |
|-------------|------------------------------|-----------------|
| Ravenously. | 20 light, high tension | per set, \$4.00 |
| Ravine. | 30 " " " | " 5.00 |
| Ravish | 40 " " " | " 6.00 |
| Ravisher. | 50 " " " | " 7.00 |
| Ravishing. | 60 " " " | " 8.00 |
| Ravishment. | 15 " low tension | " 3.00 |
| Raw. | 25 " " " | " 4.00 |
| Rawest. | 35 " " " | " 6.00 |
| Rawhide. | 45 " " " | " 8.00 |

THOMSON-HOUSTON SEGMENTS.



| Trade Word. | | Price. |
|-------------|------------------------|-----------------|
| Razed. | Standard segments..... | per set, \$2.25 |

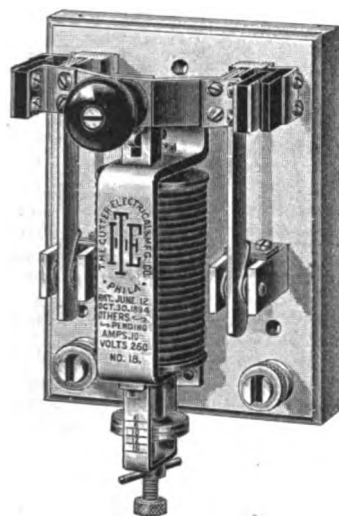
EXCELSIOR SEGMENTS.

| Trade Word. | | Price. |
|-------------|-----------------------|------------------|
| Razing. | 3 light segments..... | per set, \$10.00 |
| Razor. | 30 " " | " 20.00 |
| Razure. | 50 " " | " 50.00 |

Excelsior Segments and Slate Heads.

| Trade Word. | | Price. |
|-------------|-----------------------|------------------|
| Reach. | 3 light segments..... | per set, \$12.00 |
| Reached. | 30 " " | " 24.00 |
| Reaching. | 50 " " | " 60.00 |

ELECTRIC LIGHT AND POWER SUPPLIES.



I-T-E CIRCUIT BREAKER.

Midget junior type front connections.

Designed to meet the requirements for a small, compact circuit breaker of low capacity, for light, heat and power.

All parts are strong and well proportioned; the current-carrying parts are made of high grade copper, so proportioned that the heating of any part of the circuit breaker will not exceed 20° C. above surrounding temperature, in constant use at "actual rating." It has a wide, clean, quadruple break, is quick and reliable in action, and will operate within 5 per cent. of its adjustment, which is readily effected and constant.

The main contacts are protected by a final carbon break designed to meet the severe conditions of opening a circuit on overload or short circuits.

FINISH.

Base black enameled slate. All iron parts copper-plated, other parts dipped finish.

Single pole.

Single Pole List, Front Connections Only, 500 Volts or Under.

| Direct Current. | | | | | Alternating Current. | | | | |
|-----------------|----------------|---------|----------|---------|----------------------|----------------|---------|----------|---------|
| Trade Word. | Actual Rating. | Lowest. | Highest. | Price. | Trade Word. | Actual Rating. | Lowest. | Highest. | Price. |
| Gem..... | 4 | 3 | 6 | \$ 7.50 | Generant..... | 4 | 3 | 6 | \$10.00 |
| Gemissant..... | 6 | 4 | 9 | 7.50 | Genial..... | 6 | 4 | 9 | 10.00 |
| Gemmatton..... | 8 | 6 | 12 | 7.50 | Genialness..... | 8 | 6 | 12 | 10.00 |
| Gendarme..... | 12 | 9 | 18 | 7.50 | Geniculate..... | 12 | 9 | 18 | 10.00 |
| Gender..... | 16 | 12 | 24 | 7.50 | Geniture..... | 16 | 12 | 24 | 10.00 |
| Geneology..... | 20 | 15 | 30 | 7.50 | Geniteel..... | 20 | 15 | 30 | 10.00 |
| Generable..... | 24 | 18 | 36 | 7.50 | Genitility..... | 24 | 18 | 36 | 10.00 |

Double Pole List, Front Connections Only, 250 Volts or Under.

| Direct Current. | | | | | Alternating Current. | | | | |
|-----------------|----------------|---------|----------|---------|----------------------|----------------|---------|----------|---------|
| Trade Word. | Actual Rating. | Lowest. | Highest. | Price. | Trade Word. | Actual Rating. | Lowest. | Highest. | Price. |
| Gentlefolk..... | 4 | 3 | 6 | \$11.25 | Geodetice..... | 4 | 3 | 6 | \$12.50 |
| Gentlemen..... | 6 | 4 | 9 | 11.25 | Geogonical..... | 6 | 4 | 9 | 12.50 |
| Gentleness..... | 8 | 6 | 12 | 11.25 | Geological..... | 8 | 6 | 12 | 12.50 |
| Gentry..... | 12 | 9 | 18 | 11.25 | Geology..... | 12 | 9 | 18 | 12.50 |
| Genuine..... | 16 | 12 | 24 | 11.25 | Geomantic..... | 16 | 12 | 24 | 13.50 |
| Geocentric..... | 20 | 15 | 30 | 11.25 | Geometral..... | 20 | 15 | 30 | 12.50 |
| Geodesy..... | 24 | 18 | 36 | 11.25 | Georgics..... | 24 | 18 | 36 | 12.50 |

Triple Pole, Front or Back Connections, 250 Volts or Under.

| Direct Current. | | | | | Alternating Current. | | | | |
|-----------------|----------------|---------|----------|---------|----------------------|----------------|---------|----------|---------|
| Trade Word. | Actual Rating. | Lowest. | Highest. | Price. | Trade Word. | Actual Rating. | Lowest. | Highest. | Price. |
| Geoscopy..... | 4 | 3 | 6 | \$22.50 | Gestation..... | 4 | 3 | 6 | \$25.00 |
| Geranium..... | 6 | 4 | 9 | 22.50 | Gesture..... | 6 | 4 | 9 | 25.00 |
| Gerfent..... | 8 | 6 | 12 | 22.50 | Geyser..... | 8 | 6 | 12 | 25.00 |
| Germanic..... | 12 | 9 | 18 | 22.50 | Gherkin..... | 12 | 9 | 18 | 25.00 |
| Germinate..... | 16 | 12 | 24 | 22.50 | Ghostlike..... | 16 | 12 | 24 | 25.00 |
| Gerund..... | 20 | 15 | 30 | 22.50 | Giant..... | 20 | 15 | 30 | 25.00 |
| Gerundial..... | 24 | 18 | 36 | 22.50 | Gibberish..... | 24 | 18 | 36 | 25.00 |

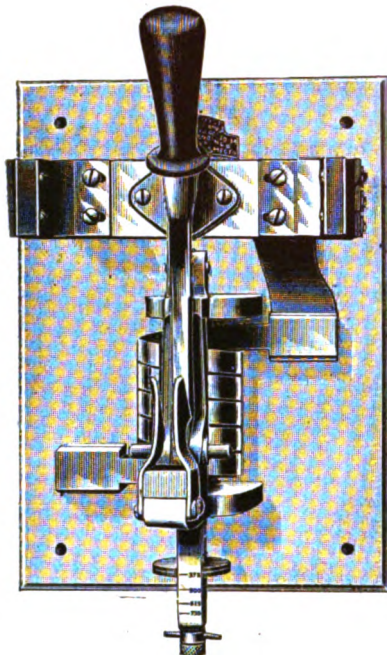
NOTE:—To determine the size required, refer to the lowest and highest range of adjustment between which points the circuit breaker will operate. The actual rating is only given to denote the capacity for continuous load, at which the heating will not exceed 20° above surrounding temperature.

Coils.

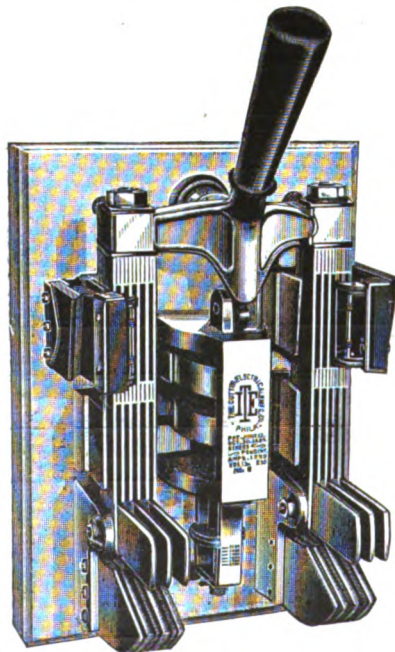
All coils are wound of doubly insulated magnet wire.

ELECTRIC LIGHT AND POWER SUPPLIES.

I-T-E CIRCUIT BREAKER.



BASE: 80 to 600 amperes, sizes 10x14x1½ in.
 800 to 1,250 " 12x15x1½ in.
 STUDS: 80 to 600 project 4½ in. from back of base.
 800 to 1,250 " 5½ " " "



BASE: 200 to 600 amperes, sizes 12x16x1½ in.
 800 to 1,000 " 12x17x2 in.
 1,250 to 1,500 " 12x17x2 in.
 STUDS: 200 to 600 project 4½ in. from back of base.
 800 to 1,500 " 6 " " "

Single Pole, Standard Switchboard Type.

Front or back connection for direct current.

This type of circuit breaker is specially designed for service where heavy currents are used for heat, light and power. All working parts are strong and well proportioned. The current-carrying parts are made of high-grade copper, so proportioned that the heating of any part of the circuit breaker will not exceed 20° C. above surrounding temperature in constant use at "actual rating." It has a wide, clean, double break, is quick and reliable in action, and will operate within 5 per cent. of its adjustment, which is readily effected and constant.

The main contacts are protected by a final carbon break designed to meet the severe conditions of opening a circuit of high voltage on overload or short circuits. Back connections are provided for by threaded studs and nuts on back of base. Face connections will only be supplied upon special request, at the same prices.

Single Pole Price List.

| Trade Word. | Actual Rating. | Lowest. | Highest. | Price. |
|-----------------|----------------|---------|----------|----------|
| Gibbet | 80 | 60 | 120 | \$ 39.00 |
| Gibbosity | 100 | 75 | 150 | 42.00 |
| Gibelotte | 150 | 110 | 225 | 42.00 |
| Gibbling | 200 | 150 | 300 | 45.00 |
| Gigantean | 300 | 225 | 525 | 57.00 |
| Giggling | 400 | 300 | 600 | 68.00 |
| Gigot | 500 | 375 | 750 | 71.50 |
| Gilder | 600 | 450 | 900 | 73.50 |
| Gimcrack | 800 | 700 | 1,200 | 98.00 |
| Gimlet | 1,000 | 800 | 1,500 | 112.50 |
| Gingival | 1,250 | 1,000 | 1,800 | 125.00 |
| Gingier | 1,500 | 1,250 | 1,800 | 200.00 |
| Girandole | 2,000 | 1,500 | 2,500 | 300.00 |
| Girdless | 3,000 | 2,500 | 4,000 | 400.00 |

Double Pole Price List.

Back connections only; for direct current, 250 volts or under.

| Trade Word. | Actual Rating. | Lowest. | Highest. | Price. |
|-----------------|----------------|---------|----------|----------|
| Glabreate | 200 | 150 | 300 | \$ 67.00 |
| Glaciate | 300 | 225 | 525 | 85.00 |
| Gladsome | 400 | 300 | 600 | 102.00 |
| Glanced | 500 | 375 | 750 | 107.50 |
| Glareous | 600 | 450 | 900 | 110.25 |
| Glaucome | 800 | 700 | 1,200 | 147.00 |
| Glazier | 1,000 | 800 | 1,500 | 168.75 |
| Glebaus | 1,250 | 1,000 | 1,800 | 225.00 |
| Gleeful | 1,500 | 1,250 | 2,250 | 300.00 |

FINISHES.

No. 1, *Special*.—Current-carrying parts copper finish; other metal parts nickel-plated. This finish is not carried in stock, but will be furnished at the 1st price.

No. 2, *Standard*.—All metal parts copper finish. This finish is carried in stock and will be supplied unless otherwise ordered.

No. 3.—This finish has been discontinued.

MOUNTING.

All circuit breakers will be mounted on black enameled slate bases, unless otherwise ordered. Circuit breakers will be furnished on marble bases only when so ordered.

When it is desired to mount circuit breakers directly on switchboards, they will be furnished mounted on slate templates, with proper length bolts where thickness of board is given; otherwise, provision will be made for 2-inch switchboards.

COILS.

The 80, 100 and 150 ampere coils are wound of doubly insulated wire. The 200 to 3,000 ampere coils are wound of bare rectangular copper.

ELECTRIC LIGHT AND POWER SUPPLIES.

I-T-E CIRCUIT BREAKER.

Midget Senior Type.

Single Pole.

Base: 5 to 60 amp. Sizes: 8x11x1¼ inches.

80 to 200 amp. " 8x11x1¼ "

Studs project ¼ inches from back of base.

This type of circuit breaker has been specially designed to meet the demand for a medium size, compact, single pole circuit breaker, for use on circuits for heat, light or power.

All parts are strong and well proportioned; the current-carrying parts are made of high-grade copper, so proportioned that the heating of any part of circuit breaker will not exceed 20°C. above surrounding temperature in constant use at "actual rating." It has a wide, clean, double break, is quick and reliable in action, and will operate within 5 per cent. of its adjustment, which is readily effected and constant.

The main contacts are protected by a final carbon break designed to meet the severe conditions of opening a circuit of high voltage on overload or short circuits.

Back connections are provided for by threaded studs and nuts on back of base. Face connections will be supplied upon special request at the same price.

Front or back connections, 500 volts or under.

DIRECT CURRENT.

| Trade Word. | Actual Rating. | Lowest. | Highest. | Price. | Trade Word. | Actual Rating. | Lowest. | Highest. | Price. |
|----------------|----------------|---------|----------|---------|-----------------|----------------|---------|----------|---------|
| Glibness..... | 5 | 4 | 8 | \$24.00 | Gloomily..... | 60 | 45 | 90 | \$33.00 |
| Gilding..... | 10 | 8 | 15 | 24.00 | Gloominess..... | 80 | 60 | 120 | 36.00 |
| Globated..... | 20 | 15 | 30 | 24.00 | Glorifying..... | 100 | 75 | 150 | 36.00 |
| Globasity..... | 30 | 25 | 45 | 24.00 | Glorious..... | 150 | 110 | 225 | 36.00 |
| Glomerate..... | 45 | 35 | 70 | 24.00 | Glottal..... | 200 | 150 | 300 | 40.00 |

Midget Senior Type, Double Pole.

Front or back connections, 250 volts or under.

DIRECT CURRENT.

| Trade Word. | Actual Rating. | Lowest. | Highest. | Price. |
|----------------|----------------|---------|----------|---------|
| Glowworm..... | 30 | 25 | 45 | \$36.00 |
| Glutinate..... | 45 | 35 | 70 | 36.00 |
| Glypte..... | 60 | 45 | 90 | 49.50 |
| Goading..... | 80 | 75 | 120 | 54.00 |
| Goberges..... | 100 | 75 | 150 | 54.00 |
| Godchild..... | 150 | 110 | 225 | 58.50 |
| Godfather..... | 200 | 150 | 300 | 60.00 |

ALTERNATING CURRENT.

| Trade Word. | Actual Rating. | Lowest. | Highest. | Price. |
|----------------|----------------|---------|----------|---------|
| Godiller..... | 30 | 25 | 45 | \$39.60 |
| Goltrous..... | 45 | 35 | 70 | 39.60 |
| Goldlace..... | 60 | 45 | 90 | 54.45 |
| Gooshes..... | 80 | 60 | 120 | 59.40 |
| Gomphosis..... | 100 | 75 | 150 | 59.40 |
| Gonoplax..... | 150 | 110 | 225 | 62.35 |
| Goodwill..... | 200 | 150 | 300 | 66.00 |

FINISHES.

No. 1. *Special*.—Current-carrying parts copper finish; other metal parts nickel-

plated. This finish is not carried in stock, but will be furnished at the list prices.

No. 2. *Standard*.—All metal parts copper finish. This finish is carried in stock, and will be furnished unless otherwise specified.

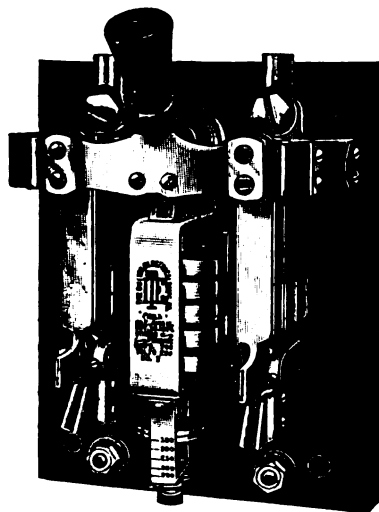
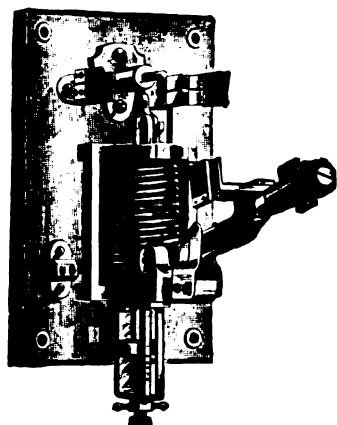
MOUNTING.

All circuit breakers will be mounted on black enameled slate bases, unless otherwise ordered. Circuit breakers will be furnished on marble bases only when so ordered, in which case add \$2.50 to list price.

When it is desired to mount circuit breakers directly on switch boards, they will be furnished mounted on slate templates, with proper length bolts, where thickness of board is given; otherwise, provision will be made for 2-inch switchboards.

COILS.

The 30, 45, 60 and 80 ampere coils are wound of doubly insulated magnet wire. The 100 to 200 ampere coils are wound of bare rectangular copper.



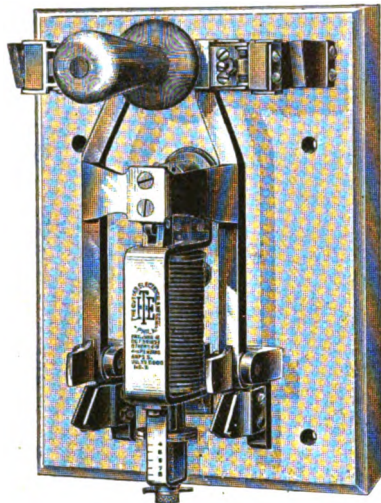
Base: 8 inches x 11 inches x 1¼ inches.

Studs project ¼ inches from back of base.

ELECTRIC LIGHT AND POWER SUPPLIES.

I-T-E CIRCUIT BREAKER.

Single pole only, alternating current type, front or back connections.



Base: 5 to 60 amp. Sizes 8 x 11 x 1 1/4 in.
80 to 200 " 8 1/2 x 12 x 1 1/4 "
Studs project 4 1/2 inches from back of base.
No. 2 Standard.—All metal parts copper
finish mounted on marble base.

This type of circuit breaker is especially designed to meet the severe conditions of opening an alternating circuit of 1,100 volts or less. It has a wide, clean, double break of 10 inches, is quick and reliable in action, and will operate within 5 per cent. of adjustment, which is easily effected and constant.

Back connections are provided for by threaded studs or nuts on back of base. Face connections will only be supplied upon special request at the same prices.

Alternating Price List.

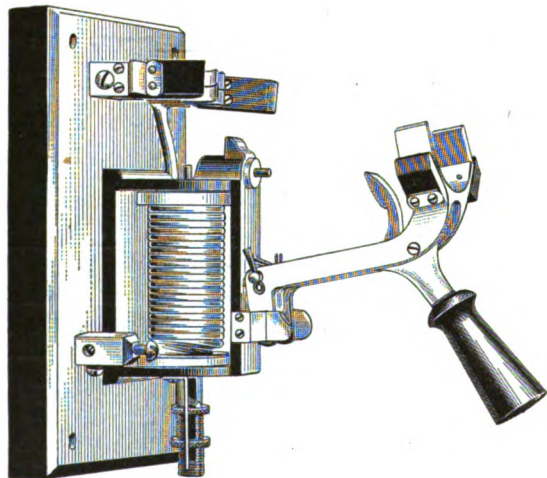
| Trade Word. | Actual Rating. | Lowest. | Highest. | Price. |
|-------------|----------------|---------|----------|---------|
| Gormandize. | 05 | 05 | 8 | \$30.00 |
| Gothical. | 10 | 10 | 15 | 30.00 |
| Goulotte. | 15 | 15 | 23 | 30.00 |
| Gourmand. | 20 | 20 | 30 | 30.00 |
| Governable. | 30 | 30 | 45 | 30.00 |
| Grabuge. | 45 | 45 | 70 | 30.00 |
| Graciable. | 60 | 60 | 90 | 33.00 |
| Grafted. | 80 | 80 | 120 | 39.00 |
| Graisage. | 100 | 100 | 150 | 89.00 |
| Grandchild. | 150 | 150 | 200 | 42.00 |
| Grandpere. | 200 | 200 | 225 | 45.00 |

To determine the size required refer to the lowest and highest range of adjustment between which points circuit breaker will operate. The actual rating is only given to denote the capacity for continuous load, at which the heating will not exceed 20° C. above surrounding temperature.

Coils.

The 5 to 80 ampere coils are wound with doubly insulated magnet wire. The 100 to 200 ampere coils are wound of bare rectangular copper.

This type of circuit breaker can be furnished with the operating coil connected in the generator circuit; the opening of the circuit breaker breaking the exciter circuit, thus demagnetizing the fields.

ELDEN
AUTOMATIC CIRCUIT
BREAKER.

There are no springs in this instrument, the switch is opened by the "hammer blow" action of the solenoid core, is adjustable to any point within its range.

Is not affected by vibrations and will open only on the flow of a current in excess of its rating.

Equipped with back connections for switch board service.

Single Pole.

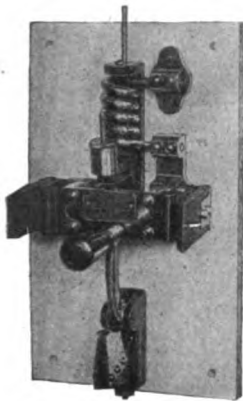
| Trade Word. | Rating for Continuous Duty. | Range of Adjustment, Lowest. | Highest. | Price. |
|-------------|-----------------------------|------------------------------|-------------|---------|
| Grange. | 15 amperes. | 10 amperes. | 25 amperes. | \$43.00 |
| Grappling. | 25 " | 20 " | 45 " | 43.00 |
| Grateron. | 50 " | 35 " | 85 " | 43.00 |
| Gratifying. | 100 " | 75 " | 175 " | 43.00 |
| Gravamen. | 200 " | 150 " | 350 " | 48.00 |
| Gravattier. | 300 " | 200 " | 550 " | 50.00 |
| Graveland. | 400 " | 300 " | 700 " | 66.00 |
| Graystone. | 500 " | 400 " | 850 " | 70.00 |
| Greciste. | 600 " | 500 " | 1000 " | 83.00 |
| Greenfinch. | 800 " | 600 " | 1400 " | 100.00 |
| Greengage. | 1000 " | 700 " | 1650 " | 120.00 |

Double Pole.

| Trade Word. | Price. |
|-------------|----------|
| Greenish. | \$ 65.00 |
| Greeting. | 65.00 |
| Greffier. | 65.00 |
| Gregarious. | 72.00 |
| Grelotter. | 75.00 |
| Gresiller. | 100.00 |
| Grief. | 105.00 |
| Griffin. | 125.00 |
| Grigon. | 150.00 |
| Grillage. | 180.00 |

ELECTRIC LIGHT AND POWER SUPPLIES.

WESTINGHOUSE AUTOMATIC CIRCUIT BREAKER.

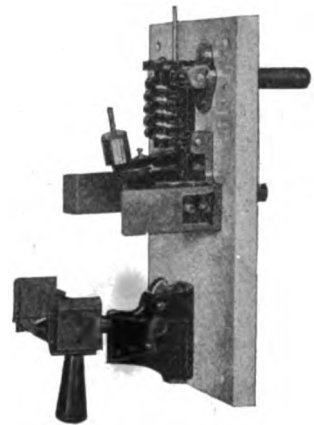


Breaker closed.

For direct current not exceeding 750 volts.

Single pole only.

This circuit breaker is provided with an armature to which can be attached calibrated weights, which determine the acting point of the breaker; these weights or discs are furnished with the breaker and as each has a definite value, their use enables the adjustment of the instrument between its minimum and maximum ratings. The final break is on square or round carbons depending on the size of the breaker.

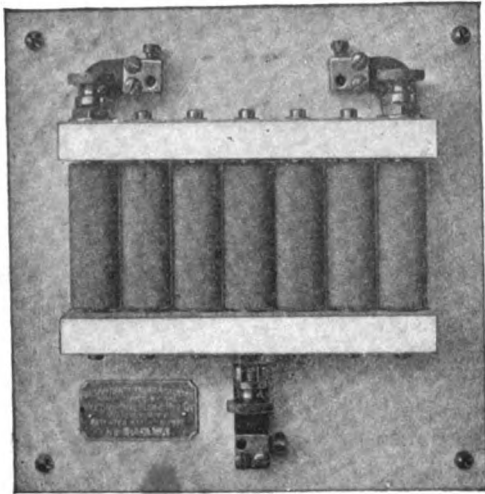


Breaker open.

| Trade Word. | Style Number. | Normal Capacity in Amperes. | Range. | Connections. | List Price. |
|------------------|---------------|--------------------------------|---------------|--------------|-------------|
| Rowport | 2687 | 15 | 10 to 30 amp. | Front. | \$ 30.00 |
| Tarqumist..... | 2688 | 30 | 20 " 40 " | " | 30.00 |
| Royalet..... | 2689 | 45 | 30 " 60 " | " | 30.00 |
| Tarlatan | 2690 | 60 | 45 " 90 " | " | 33.00 |
| Royalty..... | 5478 | 100 | 75 " 150 " | Rear. | 42.00 |
| Tarpan..... | 5480 | 200 | 150 " 300 " | " | 45.00 |
| Tarpum | 5481 | 300 | 250 " 500 " | " | 52.50 |
| Tarquinish | 5482 | 450 | 350 " 600 " | " | 65.00 |
| Tarragon | 5483 | 600 | 500 " 800 " | " | 70.00 |
| Tarras..... | 5484 | 800 | 700 " 1000 " | " | 91.00 |
| Tarriance..... | 5485 | 1000 | 800 " 1200 " | " | 97.50 |
| Rubbidge..... | 5486 | 1200 | 1000 " 1500 " | " | 112.50 |
| Tomareis..... | 5487 | 1600 | 1400 " 2000 " | " | 150.00 |
| Tomarono | 5488 | 2000 | 1800 " 3000 " | " | 228.00 |

List price for rear connection includes set of terminals with clamping nuts.

ELECTRIC LIGHT AND POWER SUPPLIES.



WURTS LIGHTNING ARRESTERS

For alternating current circuits.

**Non-Arcing Metal Double Pole Station Arrester,
Type "A."**

| Trade Word. | Style No. | Circuit Voltage. | Price. |
|-------------|-----------|------------------|---------|
| Tardity. | 707 | 1000 to 1200 | \$21.00 |

NOTE: For 2000 to 2400 volts use two (2) in series. For 3000 to 3200 use three (3) in series.



For alternating current circuits.

Non-Arcing Metal Double Pole Line Arrester, Type "C."

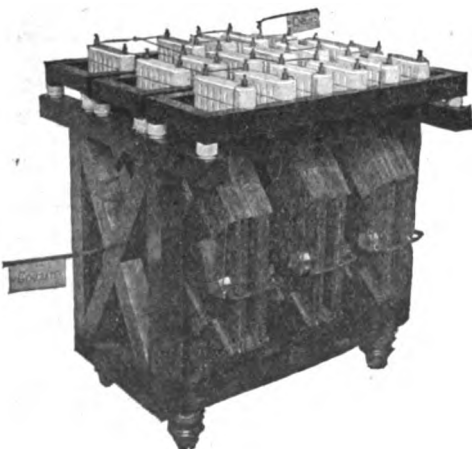
Alternating current.

| Trade Word. | Style No. | Circuit Voltage. | Price. |
|-------------|-----------|------------------|--------|
| Tardo. | 1383 | 1000 to 1200. | \$4.50 |

NOTE: For 2000 to 2400 volts use two (2) in series. For 3000 to 3200 volts use three (3) in series.

LIGHTNING ARRESTERS.

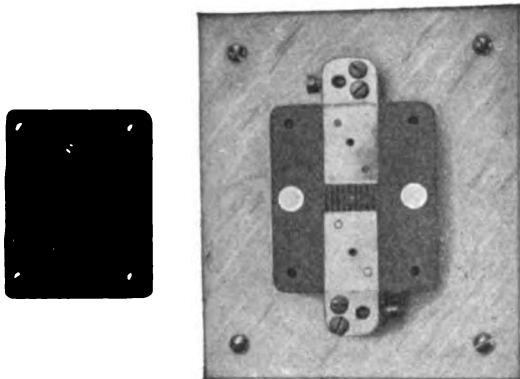
**For High Potential A. C. Transmission
Circuits, Type "R."**



| Trade Word. | Style No. | Voltage. | Current. | List Price. |
|------------------|-----------|----------|----------|-------------|
| | | | Amp. | |
| Tonitruabo | 5000 | 3000 | 7 | \$113.10 |
| Tonitruale | 5001 | 3000 | 14 | 115.86 |
| Tonitruoso | 5002 | 3000 | 19 | 119.40 |
| Tonka | 5003 | 3000 | 28 | 125.94 |
| Tonkabohne | 5004 | 3000 | 40 | 139.50 |
| Tonkaboom | 5005 | 3000 | 55 | 145.50 |
| Tonkasten | 5006 | 3000 | 75 | 153.00 |
| Tonkunst | 5007 | 3000 | 105 | 159.00 |
| Tonlehre | 5008 | 3000 | 130 | 164.40 |
| Tonlieu | 5009 | 3000 | 150 | 170.10 |
| Tonloch | 5010 | 3000 | 180 | 200.70 |

This is our standard form for protecting alternating current high potential power transmission circuits.

ELECTRIC LIGHT AND POWER SUPPLIES.



Style No. 1836. Top block removed.

WURTS LIGHTNING ARRESTERS.

For direct current circuits.

Single Pole Station Arrester, Railway Service, Type "K".

| Trade Word. | Style No. | Circuit Voltage. | Price. |
|-------------|-----------|------------------|---------------|
| Targeteer. | 1836. | 125-700..... | each, \$10.50 |

Single Pole Line Arrester for Railway Service, Line and Car Use, Type "L".

| Trade Word. | Style No. | Circuit Voltage. | Price. |
|-------------|-----------|------------------|--------------|
| Targum. | 5795. | 125-700..... | each, \$4.50 |

NOTE: This arrester can be used for station arrester also.

Choke coil for use with arrester when used on street cars, see style 2536, below.

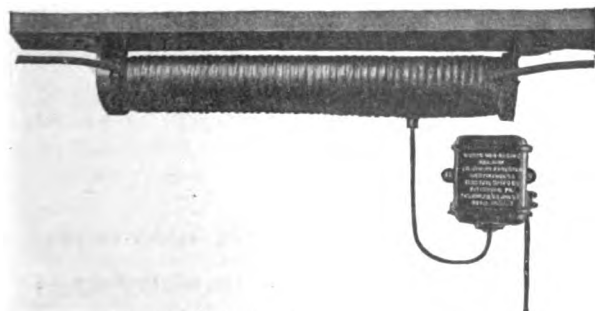


CHOKE COILS.

Multiple Spark Gap Choke Coil for Street Railway Service, Type "6"

| Trade Word. | Style No. | Continuous Capacity. | Price. |
|-------------|-----------|----------------------|---------------|
| Tonsurassi. | 2536. | 65 Amperes | each, \$10.00 |
| Tonsurato. | 3811. | 125 " | " 20.00 |

The above rating is for a rise in temperature of 25° C. Lightning arrester not included in price of choke coil.



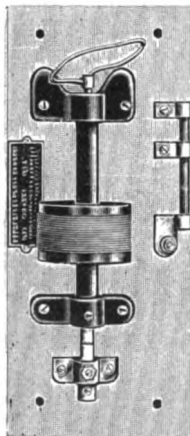
Style No. 2536, showing arrester in circuit.

ELECTRIC LIGHT AND POWER SUPPLIES.

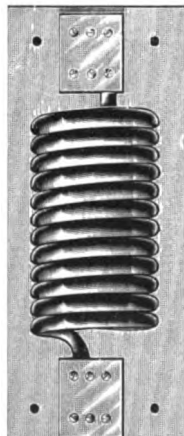
THE GARTON LIGHTNING ARRESTER.



Pole arrester, in iron cover.



Switch-board arrester.



Kicking-coil, 400 amp. capacity.

For street railway or metallic circuit, and direct or alternating currents, switch board or pole use.

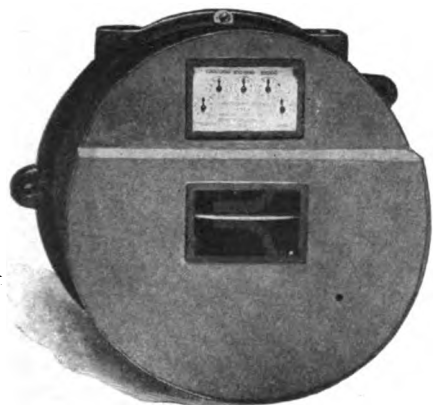
| Trade Word. | | Price Each. |
|-------------|---|-------------|
| Grindstone. | Station arrester, marble base..... | \$11.00 |
| Gripper. | " " marbleized slate base..... | 11.00 |
| Grisettes. | " " plain slate base..... | 8.00 |
| Grittiness. | Pole arrester with iron case..... | 11.00 |
| Grizzle. | " " " wooden case..... | 8.00 |
| Grogard. | Car " " iron case..... | 11.00 |
| Gronder. | Kicking coil, marble base, 400 amperes..... | 19.00 |
| Ground. | " " plain slate base, 400 amperes... | 17.00 |
| Groundless. | " " marble base, 325 amperes..... | 14.00 |
| Groundwork. | " " plain slate base, 325 amperes... | 12.00 |
| Grudgingly. | " " marble base, 125 amperes..... | 12.00 |
| Grugerie. | " " plain slate base, 125 amperes... | 10.00 |
| Grutching. | " " marble base, 50 amperes..... | 11.00 |
| Guardship. | " " plain slate base, 50 amperes.... | 9.00 |

Special sizes of kicking coils other than those listed made to order; prices on application.

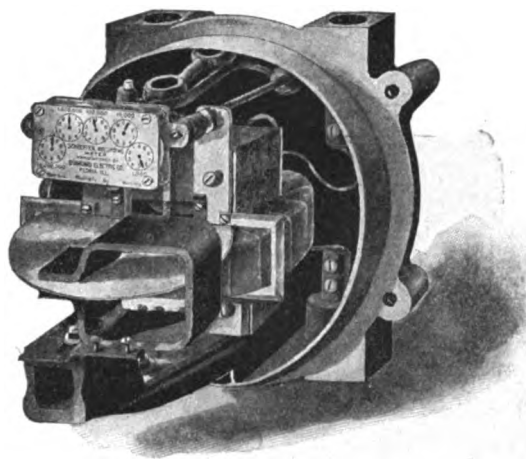
In ordering arresters use trade word and advise whether for direct or alternating, street railway or metallic circuit; also give voltage of circuit. In ordering kicking coils state size of feeders to be attached and the capacity in amperes.

NEW SCHEEFFER WATT-METER

For alternating current.



Meter with case.



Meter without case.

This meter is correct on inductive loads, and therefore can be used on fan motors or induction motors, arc lamps, etc.

The meter ordinarily sent out is correct for the alternations for which it is calibrated, but for a slight advance in price it can be furnished correct for 7,200 or 15,000 alternations. The meter can, therefore, be adjusted for 7,200 or 15,000 alternations, and be correct on both. This is not ordinarily done, in order to save the expense of adjusting and calibrating for both frequencies. Those who wish to have the meter so that it can be used on both or either frequency can pay the additional expense for the adjustment.

Lights rated on a basis of fifty watts per lamp.

| Trade Word. | 50 Volts. | | Price. | Trade Word. | 100 to 110 Volts. | | Price. |
|-------------|------------|-------------|----------|-------------|-------------------|------------|----------|
| Guerdon. | 10 lights. | 10 amperes. | \$ 25.00 | Guinea. | 10 lights. | 5 amperes. | \$ 27.00 |
| Guichette. | 15 " | 15 " | 30.00 | Gullett. | 20 " | 10 " | 30.00 |
| Guidable. | 20 " | 20 " | 34.00 | Gullible. | 30 " | 15 " | 33.00 |
| Guild. | 30 " | 30 " | 37.00 | Gumboil. | 40 " | 20 " | 41.00 |
| Guildhall. | 40 " | 40 " | 41.00 | Labefy. | 50 " | 25 " | 45.00 |
| Guileful. | 50 " | 50 " | 45.00 | Labented. | 60 " | 30 " | 47.00 |
| Guileless. | 75 " | 75 " | 55.00 | Labiale. | 70 " | 35 " | 48.00 |
| Gnillotine. | 100 " | 100 " | 70.00 | Labiated. | 100 " | 50 " | 50.00 |
| Guiltily. | 150 " | 150 " | 80.00 | Labarant. | 150 " | 75 " | 70.00 |
| Guimple | 300 " | 300 " | 110.00 | Labratory. | 200 " | 100 " | 80.00 |
| | | | | Labourage. | 300 " | 150 " | 100.00 |

Primary Circuits.

1000 to 2000 volts.

| Trade Word. | Price. | Trade Word. | Price. |
|-------------|--------------------|-------------|----------------------|
| Labrose. | 5 amperes. \$70.00 | Lachment. | 30 amperes. \$100.00 |
| Laburnam. | 10 " 80.00 | Lacertain. | 60 " 125.00 |
| Laceman. | 20 " 90.00 | Lachrymal. | 120 " 160.00 |

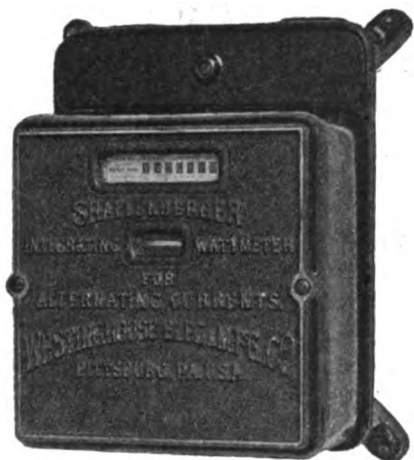
Station switch board meters, in ordinary or fancy cases, furnished.

Always give exact voltage and alternations when ordering.

Meters with fancy glass case for switch board use to measure the entire output of stations or circuits.

Prices on application.

ELECTRIC LIGHT AND POWER SUPPLIES.

SHALLENBERGER INTEGRATING
WATT-METER.

For alternating currents.

This instrument may be used to measure the power transmitted in single or polyphase circuits. It will accurately measure and record energy delivered to lamps or to motors. It measures true energy and its accuracy is independent of the inductance in the circuit. It is especially adapted to measure the energy supplied to induction motors. In ordering state plainly the style number of instrument wanted. The style number includes the necessary shunt and series converters, if any, which are used with the meter.

NOTE.—Two meters are required on two or three phase circuits.

For 3000 Alternation Circuits.

| Trade Word. | Style No. | Voltage. | Current. | Kilo-watts. | List Price. | Trade Word. | Style No. | Voltage. | Current. | Kilo-watts. | List Price. |
|---------------|-----------|----------|----------|-------------|-------------|---------------|-----------|----------|----------|-------------|-------------|
| Tiede | 5196 | 100 | 10 | 1 | \$22.50 | Tiefgcheud | 5210 | 400 | 10 | 4 | \$37.50 |
| Tiedeur . . | 5197 | " | 20 | 2 | 27.00 | Tiefgruen.. | 5211 | " | 20 | 8 | 42.00 |
| Tiedussant. | 5198 | " | 40 | 4 | 33.00 | Tiefherzig. | 5212 | " | 40 | 16 | 48.00 |
| Tiefawngig | 5199 | " | 100 | 10 | 45.00 | Tiefand . . | 5213 | " | 100 | 40 | 66.00 |
| Tiefbewegt | 5200 | " | 200 | 20 | 60.00 | Tieflandes.. | 5214 | " | 200 | 80 | 90.00 |
| Tiefblau. . | 5201 | " | 400 | 40 | 75.00 | Tiefsinn. . | 5215 | " | 400 | 160 | 120.00 |
| Tiefblauer. | 5202 | " | 800 | 80 | 120.00 | Tiefsinnig. | 5216 | " | 800 | 320 | 165.00 |
| Tiefblick. . | 5203 | 200 | 10 | 2 | 30.00 | Tiefsprung. | 5217 | 2000 | 10 | 20 | 75.00 |
| Tiefdeuker. | 5204 | " | 20 | 4 | 36.00 | Tiefstill . . | 5218 | " | 20 | 40 | 79.50 |
| Tiefdunkel. | 5205 | " | 40 | 8 | 45.00 | Tieftoonig. | 5219 | " | 40 | 80 | 85.50 |
| Tiefbene. . | 5206 | " | 100 | 20 | 60.00 | Tiegelein . . | 5220 | " | 100 | 200 | 102.00 |
| Tiefernst . | 5207 | " | 200 | 40 | 81.00 | Tiegelofen. | 5221 | " | 200 | 400 | 120.00 |
| Tiefgang . . | 5208 | " | 400 | 80 | 112.50 | Tielismo. . | 5222 | " | 400 | 800 | 150.00 |
| Tiefganges. | 5209 | " | 800 | 160 | 150.00 | Tiemannite | 5223 | " | 800 | 1600 | 195.00 |

ELECTRIC LIGHT AND POWER SUPPLIES.

SHALLENBERGER WATT-METERS.

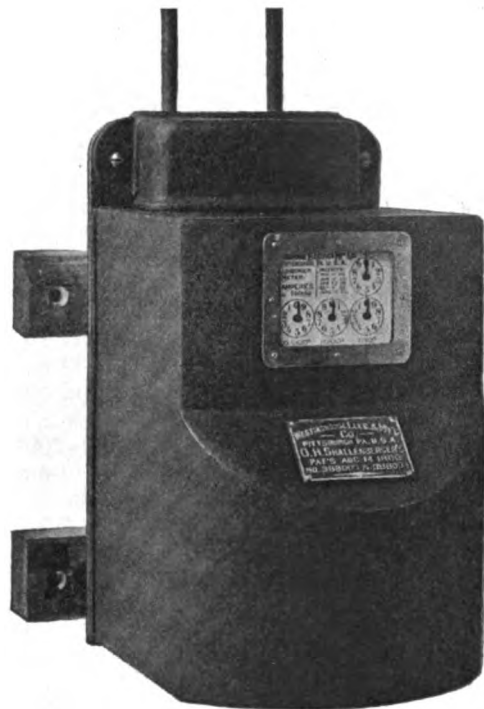
For 7200 Alternation Circuits.

| Trade Word. | Style No. | Volt- age. | Cur- rent. | Kilo- watt. | Price. | Trade Word. | Style No. | Volt- age. | Cur- rent. | Kilo- watt. | Price. |
|------------------|-----------|---------------|---------------|----------------|---------|-------------------|-----------|---------------|---------------|----------------|---------|
| Tiarlo | 5165 | 50 | 10 | .5 | \$22.50 | Tabieza | 5114 | 400 | 10 | 4 | \$37.50 |
| Tiaugeu | 5166 | " | 20 | 1 | 27.00 | Tibios | 5115 | " | 20 | 8 | 42.00 |
| Tiara | 5167 | " | 40 | 2 | 33.00 | Tibisena | 5116 | " | 40 | 16 | 48.00 |
| Tiaraed | 5168 | " | 100 | 5 | 45.00 | Tibizabo | 5117 | " | 100 | 40 | 66.00 |
| Tiaratos | 5169 | " | 200 | 10 | 60.00 | Tibizabunt | 5118 | " | 200 | 80 | 90.00 |
| Tiarelle | 5170 | " | 400 | 20 | 75.00 | Tibizamus | 5119 | " | 400 | 160 | 120.00 |
| Tiarocere | 5171 | " | 800 | 40 | 120.00 | Tibizes | 5120 | " | 800 | 320 | 165.00 |
| Tibaranus | 5100 | 100 | 10 | 1 | 22.50 | Tibizetis | 5121 | 1000 | 10 | 10 | 75.00 |
| Tibatoio | 5101 | " | 20 | 2 | 27.00 | Tibizo | 5122 | " | 20 | 20 | 79.50 |
| Tiberias | 5102 | " | 40 | 4 | 33.00 | Tibui | 5123 | " | 40 | 40 | 85.50 |
| Tiberinus | 5103 | " | 100 | 10 | 45.00 | Tiborna | 5124 | " | 100 | 100 | 102.00 |
| Tiberiolio | 5104 | " | 200 | 20 | 60.00 | Tibouchine | 5125 | " | 200 | 200 | 120.00 |
| Tibesie | 5105 | " | 400 | 40 | 75.00 | Tibullo | 5126 | " | 400 | 400 | 150.00 |
| Tibetan | 5106 | " | 800 | 80 | 120.00 | Tibullus | 5127 | " | 800 | 800 | 195.00 |
| Tibetina | 5107 | 200 | 10 | 2 | 30.00 | Tiburis | 5128 | 2000 | 10 | 20 | 75.00 |
| Tibhoth | 5108 | " | 20 | 4 | 36.00 | Tiburnorum | 5129 | " | 20 | 40 | 79.50 |
| Tibiaire | 5109 | " | 40 | 8 | 45.00 | Tiburon | 5130 | " | 40 | 80 | 85.50 |
| Tibialibus | 5110 | " | 100 | 20 | 60.00 | Tiburones | 5131 | " | 100 | 200 | 102.00 |
| Tibiamente | 5111 | " | 200 | 40 | 81.00 | Tiburtine | 5132 | " | 200 | 400 | 120.00 |
| Tibicinavi | 5112 | " | 400 | 80 | 112.50 | Tiburtinus | 5133 | " | 400 | 800 | 150.00 |
| Tibicine | 5113 | " | 800 | 160 | 150.00 | Tichcelaars | 5134 | " | 800 | 1600 | 195.00 |

For 16000 Alternation Circuits.

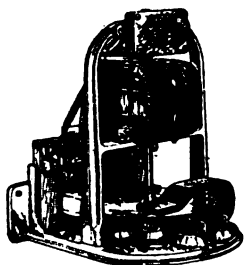
| Trade Word. | Style No. | Volt- age. | Cur- rent. | Kilo- watt. | Price. | Trade Word. | Style No. | Volt- age. | Cur- rent. | Kilo- watt. | Price. |
|------------------|-----------|---------------|---------------|----------------|---------|------------------|-----------|---------------|---------------|----------------|---------|
| Tichcløven | 5172 | 50 | 10 | .5 | \$22.50 | Ticklish | 5184 | 1000 | 10 | 10 | \$75.00 |
| Tichelwerk | 5173 | " | 20 | 1 | 27.00 | Ticklishly | 5185 | " | 20 | 20 | 79.50 |
| Tichius | 5174 | " | 40 | 2 | 33.00 | Ticktack | 5186 | " | 40 | 40 | 85.50 |
| Tichobates | 5175 | " | 100 | 5 | 45.00 | Ticoada | 5187 | " | 100 | 100 | 102.00 |
| Tichodrome | 5176 | " | 200 | 10 | 60.00 | Ticodifro | 5188 | " | 200 | 200 | 120.00 |
| Tichones | 5177 | " | 400 | 20 | 75.00 | Ticodrome | 5189 | " | 400 | 400 | 150.00 |
| Tichorine | 5178 | 100 | 10 | 1 | 22.50 | Ticoreas | 5190 | 2000 | 10 | 20 | 75.00 |
| Tichorrhin | 5179 | " | 20 | 2 | 27.00 | Ticotico | 5191 | " | 20 | 40 | 79.50 |
| Ticida | 5180 | " | 40 | 4 | 33.00 | Tidbit | 5192 | " | 40 | 80 | 85.50 |
| Ticinus | 5181 | " | 100 | 10 | 45.00 | Tidily | 5193 | " | 100 | 200 | 102.00 |
| Ticketing | 5182 | " | 200 | 20 | 60.00 | Tidiness | 5194 | " | 200 | 400 | 120.00 |
| Tickets | 5183 | " | 400 | 40 | 75.00 | Tidology | 5195 | " | 400 | 800 | 150.00 |

ELECTRIC LIGHT AND POWER SUPPLIES.

SHALLENBERGER
AMPERE-HOUR METERS.

This cut illustrates the Shallenberger alternating current meter. This is a direct reading instrument, and records accurately in ampere-hours the amount of current which passes through it. This meter is simple and strong in construction and, as the moving parts are very light, the friction is reduced to a minimum. In ordering, specify style number for proper capacity and number of alternations. Being ampere meters only, these instruments record accurately without regard to the voltage of the circuit. The meters of five amperes capacity are, however, not recommended for use on 50-volt circuits.

| Trade Word. | Style No. | Capacity Amperes. | Alterna- tions. | List Price. | Trade Word. | Style No. | Capacity Amperes. | Alterna- tions. | List Price. |
|-----------------|-----------|----------------------|--------------------|-------------|-----------------|-----------|----------------------|--------------------|-------------|
| Tardation..... | 1112 | 5 | 5000 | \$13.75 | Nacarat..... | 1140 | 80 | 5000 | \$31.25 |
| Todesnoth..... | 1113 | " | 6400 | 13.75 | Todirostre..... | 1141 | " | 6400 | 31.25 |
| Todesopfer..... | 1114 | " | 7200 | 13.75 | Todirramfo..... | 1142 | " | 7200 | 31.25 |
| Todespein..... | 1115 | " | 10000 | 13.75 | Todkrank..... | 1143 | " | 10000 | 31.25 |
| Todespfeil..... | 1116 | " | 12000 | 13.75 | Todkranker..... | 1144 | " | 12000 | 31.25 |
| Todesqual..... | 1117 | " | 14000 | 13.75 | Todmuede..... | 1145 | " | 14000 | 31.25 |
| Todesstich..... | 1118 | " | 16000 | 13.75 | Todtaufe..... | 1146 | " | 16000 | 31.25 |
| Nabit..... | 1119 | 10 | 5000 | 15.00 | Nacker..... | 1147 | 120 | 5000 | 43.75 |
| Todesstoss..... | 1120 | " | 6400 | 15.00 | Todtenamt..... | 1148 | " | 6400 | 43.75 |
| Todesturz..... | 1121 | " | 7200 | 15.00 | Todtenband..... | 1149 | " | 7200 | 43.75 |
| Todestag..... | 1122 | " | 10000 | 15.00 | Todtenbaum..... | 1150 | " | 10000 | 43.75 |
| Todesthau..... | 1123 | " | 12000 | 15.00 | Todtenbein..... | 1151 | " | 12000 | 43.75 |
| Todesthor..... | 1124 | " | 14000 | 15.00 | Todtenbett..... | 1152 | " | 14000 | 43.75 |
| Todestrost..... | 1125 | " | 16000 | 15.00 | Todtenbuch..... | 1153 | " | 16000 | 43.75 |
| Nablum..... | 1126 | 20 | 5000 | 18.75 | Tardigrada..... | 1154 | 160 | 5000 | 50.00 |
| Todesufer..... | 1127 | " | 6400 | 18.75 | Todteneule..... | 1155 | " | 6400 | 50.00 |
| Todesweg..... | 1128 | " | 7200 | 18.75 | Todtenfrau..... | 1156 | " | 7200 | 50.00 |
| Todeswort..... | 1129 | " | 10000 | 18.75 | Todtengrab..... | 1157 | " | 10000 | 50.00 |
| Todeswunde..... | 1130 | " | 12000 | 18.75 | Todtenhaus..... | 1158 | " | 12000 | 50.00 |
| Todeszeit..... | 1131 | " | 14000 | 18.75 | Todtenhemd..... | 1159 | " | 14000 | 50.00 |
| Todeszuege..... | 1132 | " | 16000 | 18.75 | Todtenhof..... | 1160 | " | 16000 | 50.00 |
| Nabob..... | 1133 | 40 | 5000 | 22.50 | Todtenlade..... | 1161 | 200 | 5000 | 55.00 |
| Todfeind..... | 1134 | " | 6400 | 22.50 | Todtenlied..... | 1162 | " | 6400 | 55.00 |
| Todfeindin..... | 1135 | " | 7200 | 22.50 | Todtenmahl..... | 1163 | " | 7200 | 55.00 |
| Todgebet..... | 1136 | " | 10000 | 22.50 | Todtenpomp..... | 1164 | " | 10000 | 55.00 |
| Todidac..... | 1137 | " | 12000 | 22.50 | Todtenruh..... | 1165 | " | 12000 | 55.00 |
| Todiers..... | 1138 | " | 14000 | 22.50 | Todtensarg..... | 1166 | " | 14000 | 55.00 |
| Todirampe..... | 1139 | " | 16000 | 22.50 | Todtentanz..... | 1167 | " | 16000 | 55.00 |



ELECTRIC LIGHT AND POWER SUPPLIES.

THOMSON RECORDING WATT-METERS.

This meter, registering directly in watt-hours, gives the consumption of energy and not merely the current delivered to any circuit. The meter is simply a motor driven by the electric energy it is to measure, and its notations during any time are proportional to the energy or watt-hours delivered to the circuit during that time. All light ratings are on the basis of 50 watts per lamp.

50 Volts.

| Trade Word. | Lights. | Amperes. | Price. | Trade Word. | Lights. | Amperes. | Price. |
|-----------------|---------|----------|---------|-----------------|---------|----------|----------|
| Lacinated..... | 5 | 5 | \$25.00 | Lamperon..... | 200 | 200 | \$100.00 |
| Lacipede..... | 10 | 10 | 25.00 | Lamprey..... | 300 | 300 | 110.00 |
| Lacquered..... | 15 | 15 | 30.00 | Lamprillon..... | 450 | 450 | 140.00 |
| Lacnique..... | 25 | 25 | 36.00 | Lanceolate..... | 600 | 600 | 180.00 |
| Lactescent..... | 50 | 50 | 45.00 | Lancewood..... | 1200 | 1200 | 250.00 |
| Lactifical..... | 75 | 75 | 55.00 | Lancinant..... | 2500 | 2500 | 330.00 |
| Lactometer..... | 100 | 100 | 70.00 | Landulet..... | 5000 | 5000 | 370.00 |
| Lacustrine..... | 150 | 150 | 80.00 | Landfall..... | 8000 | 8000 | 400.00 |

100 to 110 Volts.

| Trade Word. | Lights. | Amperes. | Price. | Trade Word. | Lights. | Amperes. | Price. |
|----------------|---------|----------|----------|-----------------|---------|----------|----------|
| Ladify..... | 6 | 3 | \$ 27.50 | Landgrave..... | 400 | 200 | \$110.00 |
| Ladybird..... | 10 | 5 | 27.50 | Landless..... | 600 | 300 | 130.00 |
| Ladylove..... | 20 | 10 | 30.00 | Languisher..... | 900 | 450 | 160.00 |
| Ladylike..... | 30 | 15 | 33.00 | Languste..... | 1200 | 600 | 190.00 |
| Ladyship..... | 50 | 25 | 45.00 | Langorous..... | 2400 | 1200 | 320.00 |
| Lalcal..... | 100 | 50 | 50.00 | Laniary..... | 5000 | 2500 | 380.00 |
| Lalderon..... | 150 | 75 | 70.00 | Laniferous..... | 10000 | 5000 | 425.00 |
| Laldonite..... | 200 | 100 | 80.00 | Lanifce..... | 16000 | 8000 | 460.00 |
| Lainage..... | 300 | 150 | 100.00 | | | | |

Three Wire, 220 Volts.

| Trade Word. | Lights. | Amperes. | Price. | Trade Word. | Lights. | Amperes. | Price. |
|----------------|---------|----------|---------|---------------|---------|----------|----------|
| Laitance..... | 15 | 3 1/4 | \$35.00 | Lanky..... | 220 | 50 | \$ 75.00 |
| Laiteron..... | 33 | 7 1/2 | 35.00 | Lankness..... | 300 | 75 | 85.00 |
| Lallation..... | 66 | 15 | 50.00 | Lanneret..... | 440 | 100 | 100.00 |
| Lamanaur..... | 110 | 25 | 60.00 | Lanturlu..... | 666 | 150 | 125.00 |

220 Volts, Lights or Motors.

| Trade Word. | Horse Power. | Amperes. | Price. | Trade Word. | Horse Power. | Amperes. | Price. |
|-----------------|--------------|----------|---------|------------------|--------------|----------|----------|
| Lamantine..... | 1 | 3 | \$36.50 | Lannuginous..... | 25 | 100 | \$100.00 |
| Lambative..... | 1 1/4 | 5 | 36.50 | Lapereau..... | 40 | 150 | 120.00 |
| Lambent..... | 2 | 10 | 45.00 | Lapicide..... | 50 | 200 | 135.00 |
| Lambiner..... | 3 1/4 | 15 | 50.00 | Lapidation..... | 80 | 300 | 150.00 |
| Lambourde..... | 7 | 25 | 60.00 | Lapideous..... | 125 | 450 | 190.00 |
| Lambrequin..... | 15 | 50 | 70.00 | Lapidific..... | 160 | 600 | 220.00 |
| Lambrusque..... | 20 | 75 | 85.00 | Lapidist..... | 320 | 1200 | 300.00 |

500 Volts.

| Trade Word. | Horse Power. | Amperes. | Price. | Trade Word. | Horse Power. | Amperes. | Price. |
|-----------------|--------------|----------|---------|-----------------|--------------|----------|----------|
| Lamella..... | 1 1/4 | 3 | \$40.00 | Lappet..... | 50 | 75 | \$100.00 |
| Lameness..... | 2 1/4 | 5 | 50.00 | Lappingly..... | 60 | 100 | 110.00 |
| Lambewool..... | 5 | 10 | 55.00 | Lapsable..... | 100 | 150 | 125.00 |
| Laminage..... | 7 1/4 | 15 | 60.00 | Lapetone..... | 120 | 200 | 150.00 |
| Laminating..... | 15 | 25 | 65.00 | Laqueton..... | 200 | 300 | 175.00 |
| Lamish..... | 30 | 50 | 85.00 | Lardaceous..... | 300 | 450 | 225.00 |

Primary Circuits, 1000 to 2000 Volts. (Price includes transformers)

| Trade Word. | Amperes. | Price. | Trade Word. | Amperes. | Price. |
|-----------------|----------|----------|----------------|----------|----------|
| Lamma..... | 10 | \$ 80.00 | Larder..... | 60 | \$125.00 |
| Lampadaire..... | 20 | 90.00 | Largement..... | 120 | 160.00 |
| Lampate..... | 30 | 100.00 | Larghetto..... | 150 | 175.00 |

ELECTRIC LIGHT AND POWER SUPPLIES.

WAGNER TRANSFORMERS.

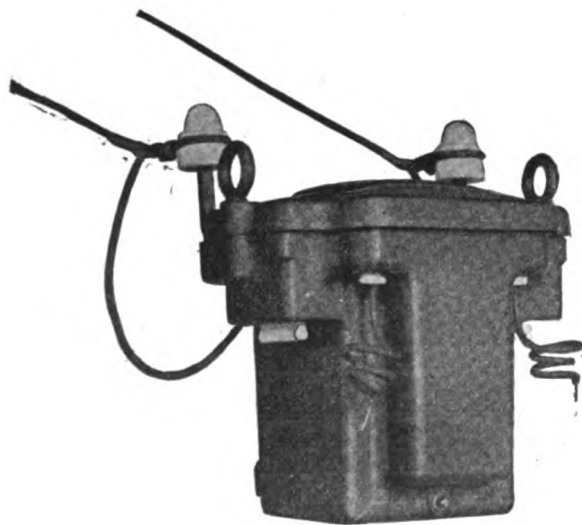


The manufacturer of transformers has two distinct classes of central stations to supply—those furnishing an all day service, and those furnishing only a night service. The former requires an equipment of transformers with a high all day efficiency, while the latter can operate very satisfactorily with transformers somewhat lower in efficiency. To meet the demands of both classes, we furnish two distinct lines of transformers in all sizes up to and including the 150-lighter—the Type G extra high efficiency, and the type F slightly lower in efficiency.

Type G is designed to afford a degree of economy in transformer service in excess of that heretofore possible in addition to embodying many decided mechanical improvements.

The general design of Type F and G are identical and are as illustrated, the leads, both primary and secondary, are brought out *vertically* through most substantial porcelain bushings, and are of *extra* flexible standard cable. The cable used is of the very best high tension quality, and its flexibility will greatly facilitate connection to line wire when erecting. The general character of bringing out the leads is such that surface creepage of current to the case is an impossibility. Second, the covers to the cast iron cases are held down by the eye bolts in place of small screws as heretofore, and a broad lip comes down over the top of the box, assuring the effectual draining off of all water, whatever

the atmospheric conditions. Third, the hanger irons are no longer bolted to the cases, but now slip into receptacles cast upon the boxes greatly facilitating erection, from the fact that the lineman requires no tools whatever in the operation. The sizes of hanger irons have furthermore been decreased greatly in number, one size of iron fitting four or five sizes of transformers, where heretofore each size of transformer has required its special size of hanger irons. No improvement in any direction will be more appreciated than this of simplifying the work of erection. When so ordered, special hanger irons will be provided that have sufficient distance between to "straddle" the pole. Fourth, there are but two secondary leads, instead of four, the connections for 50 or 100 volts being now made on an interchangeable block inside the case instead of by cross connections on the outside, with the single exception of the 500 watt size. In this size the standard is wound invariably for 100 volts, although both 50 and 100 volt ends



Corner view.

will be provided where especially ordered. Fifth, two types, one *with* and the other *without* attached fuse blocks, are built. The attached fuse block is that form built as the Type XX in independent box form. The fuse is carried in a completely closed tube within a removable porcelain plug. For independent box service, either the Type XX or Type XL cut-outs are furnished, as desired.

ELECTRIC LIGHT AND POWER SUPPLIES.

WAGNER TRANSFORMERS

All 2000 volt transformers, with the exception of the 500 watt size, are provided with an interchangeable device enabling the connection to be easily changed for operation on either 1000 or 2000 volts as desired.

The line has been designed for use dry or oil filled. Transformers for 1000 volts may be used in either manner, at the selection of the purchaser. For all 2000 or higher voltage coils, oil is recommended. No mechanical changes in the cases are necessary to adapt them to either dry or oil service.

These transformers are sold under guarantees as to performance and permanency all of which are fully explained in special circulars, which will be sent on application.

Price List.

| TYPE F. | | | TYPE G. | | |
|-----------|--------|-------------|-----------|--------|-------------|
| Capacity. | | List Price. | Capacity. | | List Price. |
| Lights. | Watts. | | Lights. | Watts. | |
| 10 | 500 | \$32.00 | 10 | 500 | \$42.10 |
| 20 | 1000 | 45.00 | 20 | 1000 | 52.00 |
| 30 | 1500 | 56.00 | 30 | 1500 | 70.00 |
| 40 | 2000 | 68.00 | 40 | 2000 | 75.00 |
| 60 | 3000 | 84.00 | 60 | 3000 | 110.00 |
| 80 | 4000 | 104.00 | 80 | 4000 | 134.00 |
| 100 | 5000 | 124.00 | 100 | 5000 | 155.00 |
| 150 | 7500 | 170.00 | 125 | 6250 | 178.00 |
| 200 | 10000 | 210.00 | 150 | 7500 | 255.00 |
| 300 | 15000 | 280.00 | 200 | 10000 | 266.00 |
| 400 | 20000 | 340.00 | 300 | 15000 | 306.00 |
| 500 | 25000 | 440.00 | 400 | 20000 | 379.00 |
| | | | 500 | 25000 | 476.00 |

Prices include XX fuse boxes attached or detached as may be desired, or the XL detached, also sufficient amount of oil for all 2000 volt transformers.

In ordering specify type of fuse box desired and whether attached or detached; unless otherwise specified type XX attached will be sent

See following pages for data and trade words.

ELECTRIC LIGHT AND POWER SUPPLIES. WAGNER TRANSFORMERS.

Type F.

1000 Volt Line—133 Cycles.

| Trade Word. | Capacity. | | Per Cent. of Iron Loss. | Per Cent. of Cu. Loss. | Per Cent. of Regulation. | Per Cent. Efficiencies. | | | | | | |
|-------------|-----------|--------|-------------------------|------------------------|--------------------------|-------------------------|---------|-----------|-----------|-----------|-----------|----------|
| | Lights. | Watts. | | | | 1/4 Load. | 1 Load. | 3/4 Load. | 1/2 Load. | 1/3 Load. | 1/6 Load. | All Day. |
| Largition. | 10 | 500 | 3.60 | 2.72 | 3.22 | 94.09 | 94.05 | 93.61 | 92.11 | 86.92 | 73.37 | 83.33 |
| Larigot. | 20 | 1000 | 2.50 | 2.60 | 3.10 | 95.01 | 95.14 | 94.98 | 94.07 | 90.38 | 79.81 | 87.26 |
| Larking. | 30 | 1500 | 2.10 | 2.50 | 3.00 | 95.41 | 95.60 | 95.54 | 94.62 | 91.74 | 82.41 | 88.82 |
| Larkspur. | 40 | 2000 | 1.90 | 2.40 | 2.90 | 95.67 | 95.87 | 95.85 | 95.23 | 92.45 | 83.89 | 89.67 |
| Larmier. | 60 | 3000 | 1.52 | 2.30 | 2.80 | 96.07 | 96.32 | 96.38 | 95.97 | 93.77 | 86.65 | 91.06 |
| Larmoyant. | 80 | 4000 | 1.30 | 1.92 | 2.52 | 96.67 | 96.88 | 96.92 | 96.56 | 94.62 | 88.33 | 92.45 |
| Larroneau. | 100 | 5000 | 1.27 | 1.70 | 2.30 | 96.95 | 97.11 | 97.12 | 96.71 | 94.80 | 88.57 | 92.76 |
| Larvated. | 150 | 7500 | 1.07 | 1.65 | 2.25 | 97.17 | 97.35 | 97.41 | 97.12 | 95.52 | 90.17 | 93.64 |

Interchangeable 1,000 or 2,000 Volt Line—133 Cycles.

| | | | | | | | | | | | | |
|-------------|-----|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|
| Laryngeal. | *10 | 500 | 3.60 | 3.13 | 3.63 | 93.64 | 93.69 | 93.34 | 91.94 | 86.83 | 73.36 | 83.04 |
| Lassitude. | 20 | 1000 | 2.50 | 2.87 | 3.37 | 94.71 | 94.90 | 94.80 | 93.95 | 90.35 | 79.81 | 87.05 |
| Lastingly. | 30 | 1500 | 2.10 | 2.79 | 3.29 | 95.09 | 95.33 | 95.34 | 91.69 | 91.67 | 82.43 | 88.59 |
| Latchet. | 40 | 2000 | 1.90 | 2.66 | 3.16 | 95.38 | 95.63 | 95.67 | 95.11 | 92.38 | 83.82 | 89.46 |
| Latency. | 60 | 3000 | 1.52 | 2.36 | 2.86 | 96.01 | 96.26 | 96.35 | 95.95 | 93.77 | 86.65 | 91.19 |
| Lathing. | 80 | 4000 | 1.30 | 2.05 | 2.65 | 96.52 | 96.75 | 96.83 | 96.51 | 94.62 | 88.34 | 92.34 |
| Laticlave. | 100 | 5000 | 1.27 | 1.80 | 2.40 | 96.83 | 97.02 | 97.05 | 96.67 | 94.76 | 88.57 | 92.66 |
| Latinistic. | 150 | 7500 | 1.07 | 1.70 | 2.30 | 97.11 | 97.30 | 97.37 | 97.08 | 95.52 | 90.17 | 93.60 |

1,000 Volt Line—60 Cycles.

| | | | | | | | | | | | | |
|-------------|-----|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|
| Latrocity. | 10 | 500 | 5.42 | 2.72 | 2.97 | 92.83 | 92.47 | 91.53 | 89.12 | 81.75 | 64.73 | 77.67 |
| Laudaunum. | 20 | 1000 | 3.89 | 2.60 | 2.85 | 94.02 | 93.91 | 93.34 | 91.67 | 86.05 | 71.84 | 82.45 |
| Lauder. | 30 | 1500 | 3.00 | 2.50 | 2.75 | 94.76 | 94.78 | 94.45 | 93.23 | 88.81 | 76.74 | 85.54 |
| Laureation. | 40 | 2000 | 2.60 | 2.40 | 2.65 | 95.17 | 95.23 | 95.01 | 93.96 | 90.12 | 79.23 | 87.04 |
| Laurelled. | 60 | 3000 | 2.19 | 2.30 | 2.55 | 95.58 | 95.70 | 95.56 | 94.75 | 91.47 | 81.90 | 88.64 |
| Lavaret. | 80 | 4000 | 1.90 | 1.92 | 2.22 | 96.22 | 96.32 | 96.17 | 95.45 | 92.52 | 83.89 | 90.05 |
| Laxation. | 100 | 5000 | 1.80 | 1.70 | 2.00 | 96.56 | 96.61 | 96.46 | 95.73 | 92.93 | 84.60 | 90.62 |
| Layering. | 150 | 7500 | 1.45 | 1.65 | 1.95 | 96.88 | 96.99 | 96.93 | 96.41 | 94.16 | 87.18 | 92.07 |

Interchangeable 1,000 or 2,000 Volt Line—60 Cycles.

| | | | | | | | | | | | | |
|-------------|-----|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|
| Lazarist | *10 | 500 | 5.42 | 3.13 | 2.88 | 92.38 | 92.12 | 91.27 | 88.96 | 81.67 | 64.72 | 77.43 |
| Lazulite. | 20 | 1000 | 3.89 | 2.87 | 3.12 | 93.72 | 93.66 | 93.16 | 91.55 | 86.02 | 71.83 | 82.27 |
| Leaderless. | 30 | 1500 | 3.00 | 2.79 | 3.04 | 94.44 | 94.52 | 94.26 | 93.11 | 88.74 | 76.74 | 85.33 |
| Leadership. | 40 | 2000 | 2.60 | 2.66 | 2.91 | 94.87 | 95.00 | 94.82 | 93.86 | 90.05 | 79.17 | 86.85 |
| Leadingly. | 60 | 3000 | 2.19 | 2.36 | 2.61 | 95.51 | 95.64 | 95.52 | 94.73 | 91.47 | 81.90 | 88.59 |
| Leapfrog. | 80 | 4000 | 1.90 | 2.05 | 2.35 | 96.08 | 96.20 | 96.09 | 95.40 | 92.52 | 83.89 | 89.95 |
| Learnable. | 100 | 5000 | 1.80 | 1.80 | 2.10 | 96.44 | 96.52 | 96.38 | 95.69 | 92.90 | 84.60 | 90.54 |
| Learnedly. | 150 | 7500 | 1.45 | 1.70 | 2.00 | 96.82 | 96.94 | 96.89 | 96.37 | 94.16 | 87.18 | 92.03 |

*This size is built for 2,000 volts only, unless specially ordered interchangeable.

ELECTRIC LIGHT AND POWER SUPPLIES.

WAGNER TRANSFORMERS.

Type G.

1,000 Volt Line—133 Cycles.

| Trade Word. | Capacity. | | Per Cent. Iron Loss. | Per Cent. Cu. Loss. | Per Cent. Regulation. | Per Cent. Efficiencies. | | | | | | |
|-------------|-----------|--------|----------------------|---------------------|-----------------------|-------------------------|---------|-----------|-----------|-----------|-----------|----------|
| | Lights. | Watts. | | | | 1 1/2 Load. | 1 Load. | 3/4 Load. | 1/2 Load. | 1/4 Load. | 1/8 Load. | All Day. |
| Leathery. | 10 | 500 | 3.32 | 2.50 | 3.00 | 94.54 | 94.50 | 94.07 | 92.69 | 87.81 | 74.96 | 84.44 |
| Lecherous. | 20 | 1000 | 2.40 | 2.45 | 2.95 | 95.25 | 95.37 | 95.21 | 94.32 | 90.74 | 80.51 | 87.74 |
| Lectionary. | 30 | 1500 | 1.99 | 2.25 | 2.75 | 95.78 | 95.93 | 95.84 | 95.14 | 92.14 | 83.26 | 89.28 |
| Lecturer. | 40 | 2000 | 1.80 | 2.05 | 2.55 | 96.16 | 96.29 | 96.20 | 95.58 | 92.86 | 84.60 | 90.34 |
| Ledgar. | 60 | 3000 | 1.45 | 2.00 | 2.50 | 96.47 | 96.66 | 96.67 | 96.24 | 94.09 | 87.18 | 91.77 |
| Leechcraft. | 80 | 4000 | 1.24 | 1.80 | 2.40 | 96.86 | 97.04 | 97.11 | 96.73 | 94.87 | 88.88 | 92.80 |
| Leering. | 100 | 5000 | 1.22 | 1.60 | 2.20 | 97.11 | 97.25 | 97.25 | 96.86 | 94.98 | 89.04 | 93.06 |
| Legalement. | 125 | 6250 | .99 | 1.60 | 2.20 | 97.29 | 97.54 | 97.54 | 97.29 | 95.82 | 90.90 | 94.02 |

Interchangeable 1,000 or 2,000 Volt Line—133 Cycles.

| | | | | | | | | | | | | |
|-------------|-----|-------|------|------|------|-------|-------|-------|-------|-------|-------|-------|
| Legalist. | 10 | 500 | 3.32 | 2.90 | 3.40 | 94.09 | 94.14 | 93.82 | 92.52 | 87.07 | 74.91 | 84.14 |
| Legataire. | 20 | 1000 | 2.40 | 2.75 | 3.25 | 94.91 | 95.10 | 95.02 | 94.19 | 90.67 | 80.47 | 87.51 |
| Legatary. | 30 | 1500 | 1.99 | 2.60 | 3.10 | 95.39 | 95.61 | 95.62 | 94.98 | 92.08 | 83.22 | 89.16 |
| Legatine. | 40 | 2000 | 1.80 | 2.35 | 2.85 | 95.81 | 96.01 | 96.01 | 95.45 | 92.76 | 84.58 | 90.09 |
| Legerement. | 60 | 3000 | 1.45 | 2.25 | 2.85 | 96.18 | 96.43 | 96.51 | 96.13 | 94.02 | 87.16 | 91.56 |
| Legerete. | 80 | 4000 | 1.24 | 1.95 | 2.55 | 96.68 | 96.90 | 96.99 | 96.67 | 94.84 | 88.81 | 92.67 |
| Legerity. | 100 | 5000 | 1.22 | 1.80 | 2.40 | 96.88 | 97.06 | 97.13 | 96.76 | 94.94 | 88.98 | 92.85 |
| Legibility. | 125 | 6250 | .99 | 1.80 | 2.40 | 97.05 | 97.28 | 97.42 | 97.20 | 95.78 | 90.84 | 93.85 |
| Legionary. | 150 | 7500 | .91 | 1.65 | 2.25 | 97.29 | 97.50 | 97.61 | 97.42 | 96.11 | 91.51 | 94.32 |
| Legumen. | 200 | 10000 | .81 | 1.60 | 2.20 | 97.42 | 97.64 | 97.77 | 97.63 | 96.45 | 92.37 | 94.79 |
| Leiothry. | 300 | 15000 | .72 | 1.60 | 2.20 | 97.49 | 97.73 | 97.88 | 97.80 | 96.82 | 93.14 | 95.18 |
| Lemanite. | 400 | 20000 | .63 | 1.40 | 2.50 | 97.55 | 98.00 | 98.00 | 97.95 | 97.16 | 93.59 | 95.58 |
| Lemniscate. | 500 | 25000 | .59 | 1.45 | 2.05 | 97.77 | 98.00 | 98.16 | 98.13 | 97.35 | 94.33 | 95.89 |

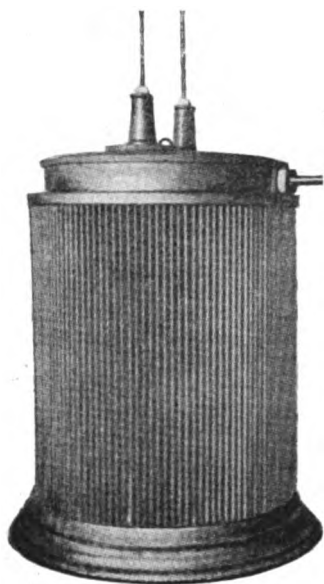
1,000 Volt Line—60 Cycles.

| | | | | | | | | | | | | |
|-------------|-----|------|-------|------|------|-------|-------|-------|-------|-------|-------|-------|
| Lemurien. | 10 | 500 | 4.39 | 2.5 | 2.75 | 93.77 | 93.55 | 92.82 | 90.89 | 84.61 | 69.37 | 80.92 |
| Lendore. | 20 | 1000 | 3.15 | 2.45 | 2.65 | 94.71 | 94.69 | 94.30 | 93.06 | 88.33 | 75.90 | 85.09 |
| Lenifier. | 30 | 1500 | 2.57 | 2.25 | 2.50 | 95.36 | 95.40 | 95.13 | 94.10 | 90.22 | 79.41 | 87.27 |
| Lengthwise. | 40 | 2000 | 2.32 | 2.05 | 2.30 | 95.74 | 95.81 | 95.58 | 94.64 | 91.08 | 81.08 | 88.35 |
| Lenitive. | 60 | 3000 | 1.875 | 2.00 | 2.30 | 96.15 | 96.26 | 96.16 | 95.46 | 92.59 | 84.06 | 90.03 |
| Lentement. | 80 | 4000 | 1.61 | 1.8 | 2.10 | 96.56 | 96.70 | 96.62 | 96.04 | 93.56 | 85.99 | 91.25 |
| Lenticular. | 100 | 5000 | 1.465 | 1.6 | 1.90 | 96.92 | 97.02 | 96.94 | 96.34 | 94.10 | 87.10 | 92.05 |
| Lentiforme. | 125 | 6250 | 1.3 | 1.6 | 1.90 | 97.05 | 97.18 | 96.90 | 96.71 | 94.65 | 88.37 | 92.72 |

Interchangeable 1,000 or 2,000 Volt Line—60 Cycles.

| | | | | | | | | | | | | |
|-------------|------|-------|-------|------|------|-------|-------|-------|-------|-------|-------|-------|
| Lentiscus. | 10 | 500 | 4.39 | 2.9 | 3.15 | 93.33 | 93.20 | 92.56 | 90.72 | 84.54 | 69.35 | 80.66 |
| Lentisque. | 20 | 1000 | 3.15 | 2.75 | 3.00 | 94.38 | 94.42 | 94.10 | 92.88 | 88.27 | 75.88 | 84.83 |
| Lentil. | 30 | 1500 | 2.57 | 2.60 | 2.85 | 94.98 | 95.08 | 94.95 | 93.94 | 90.15 | 79.39 | 87.05 |
| Lentilleux. | 40 | 2000 | 2.32 | 2.35 | 2.55 | 95.43 | 95.53 | 95.42 | 94.51 | 91.04 | 81.01 | 88.11 |
| Lentitude. | 60 | 3000 | 1.875 | 2.25 | 2.50 | 95.84 | 96.03 | 96.02 | 95.35 | 92.55 | 84.05 | 89.88 |
| Leonurus. | 80 | 4000 | 1.61 | 1.95 | 2.25 | 96.40 | 96.56 | 96.51 | 95.98 | 93.54 | 85.99 | 91.17 |
| Lepadite. | 100 | 5000 | 1.465 | 1.8 | 2.10 | 96.69 | 96.83 | 96.86 | 96.31 | 94.09 | 87.07 | 91.88 |
| Lepidosia. | 125 | 6250 | 1.3 | 1.8 | 2.10 | 96.81 | 96.99 | 96.99 | 96.61 | 94.66 | 88.35 | 92.56 |
| Leporine. | 150 | 7500 | 1.21 | 1.65 | 1.95 | 97.05 | 97.21 | 97.22 | 96.86 | 95.02 | 89.07 | 93.05 |
| Leproserie. | 200 | 10000 | 1.00 | 1.6 | 1.90 | 97.28 | 97.46 | 97.53 | 97.27 | 95.78 | 90.77 | 93.98 |
| Leptology. | 300 | 15000 | .87 | 1.6 | 1.90 | 97.37 | 97.58 | 97.69 | 97.52 | 96.26 | 91.86 | 94.54 |
| Lepturtic. | 400 | 20000 | .87 | 1.6 | 1.90 | 97.37 | 97.58 | 97.69 | 97.52 | 96.26 | 91.86 | 94.53 |
| Lesbian. | 500 | 25000 | .80 | 1.45 | 1.75 | 97.61 | 97.79 | 97.89 | 97.73 | 96.57 | 92.50 | 94.97 |
| Lesinerie. | 600 | 30000 | .79 | 1.45 | 1.75 | 97.62 | 97.80 | 97.90 | 97.75 | 96.61 | 92.51 | 95.01 |
| Lethality. | 800 | 40000 | .66 | 1.43 | 1.75 | 97.74 | 97.95 | 98.09 | 98.00 | 97.72 | 93.72 | 96.50 |
| Lettered. | 1000 | 50000 | .53 | 1.37 | 1.75 | 97.91 | 98.13 | 98.30 | 98.22 | 97.61 | 94.87 | 96.23 |

ELECTRIC LIGHT AND POWER SUPPLIES.

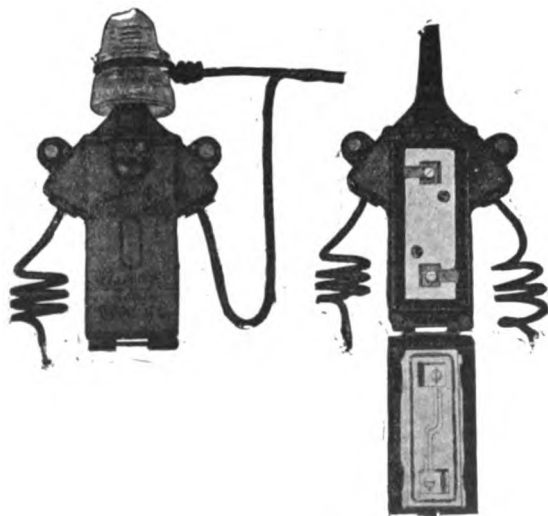


TRANSFORMERS FOR POWER TRANSMISSION.

We are prepared to make prices for static transformers to be used for power transmission and invite correspondence on the subject.

These transformers are built to specifications and prices are contingent on individual requirements.

HIGH TENSION FUSE CUT-OUTS.



Type XL cut-out.



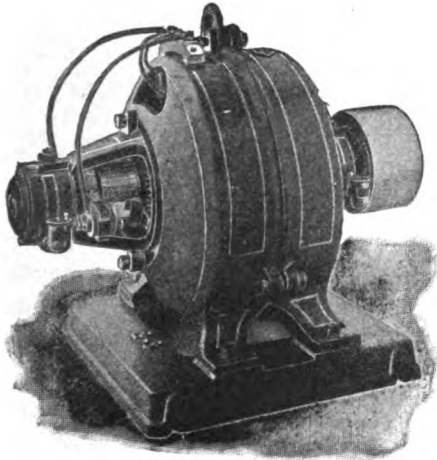
Type XX cut-out box, showing fuse plug removed

Trade Word.

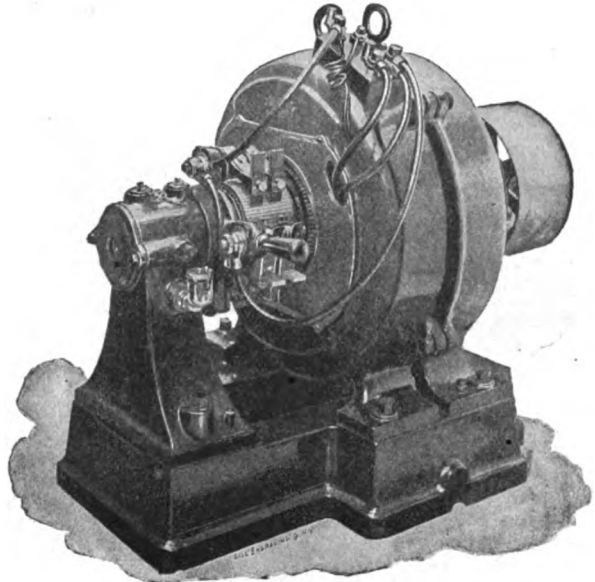
| | | Price |
|----------|-------------------|--------|
| Leucine. | Type XL.....each, | \$4.50 |
| Leucoma. | Type XX....." | 4.50 |

ELECTRIC LIGHT AND POWER SUPPLIES.

NEW TYPE LUNDELL MOTOR AND GENERATOR.



Two pole type.



Four pole type.

| Trade Word. | Dynamo Capacity 16 C. P. lamps | Ampere at 115 V. | Motor Guaran- teed Brake H.P. | Kilo-watts | Voltage. | PULLEY. | | List Price. |
|-------------|--------------------------------------|---------------------|--|------------|----------------|-----------|-------|-------------|
| | | | | | | Diameter. | Face. | |
| Fall..... | 4 | 2.2 | ¼ | .25 | 115, 230, 500* | 2½ | 1½ | \$ 90.00 |
| Favor..... | 8 | 4.3 | ½ | .5 | 115, 230, 500* | 3½ | 2 | 130.00 |
| Feast..... | 16 | 8.7 | 1 | 1. | 115, 230, 500* | 4½ | 2½ | 160.00 |
| Feign..... | 32 | 16.7 | 2 | 1.9 | 115, 230, 500 | 6 | 3½ | 250.00 |
| Fell..... | 45 | 23.9 | 3 | 2.75 | 115, 230, 500 | 6 | 3½ | 350.00 |
| Fetch..... | 66 | 32. | 4 | 3.6 | 115, 230, 500 | 7 | 3½ | 425.00 |
| Finish..... | 77 | 39.4 | ** 5 | 4.50 | 115, 230, 500 | 8 | 4½ | 475.00 |
| Fish..... | 113 | 57.8 | ** 7½ | 6.66 | 115, 230, 500 | 9 | 5 | 600.00 |
| Fix..... | 148 | 76.1 | **10 | 8.75 | 115, 230, 500 | 11 | 6 | 700.00 |
| Flash..... | 216 | 110.7 | **15 | 12.7 | 115, 230, 500 | 13 | 6½ | 900.00 |
| Float..... | 284 | 145.2 | **20 | 16.7 | 115, 230, 500 | 15 | 7 | 1,100.00 |
| Flood..... | 351 | 179.5 | **25 | 20.6 | 115, 230, 500 | 17 | 8 | 1,300.00 |
| Flows..... | 484 | 248.7 | **35 | 28.5 | 115, 230, 500 | 22 | 10 | 1,800.00 |

* ¼, ½ and 1 H. P. motors wound for 500 volt circuit, \$5.00 net extra.

** Four-pole type; all smaller sizes two-pole type.

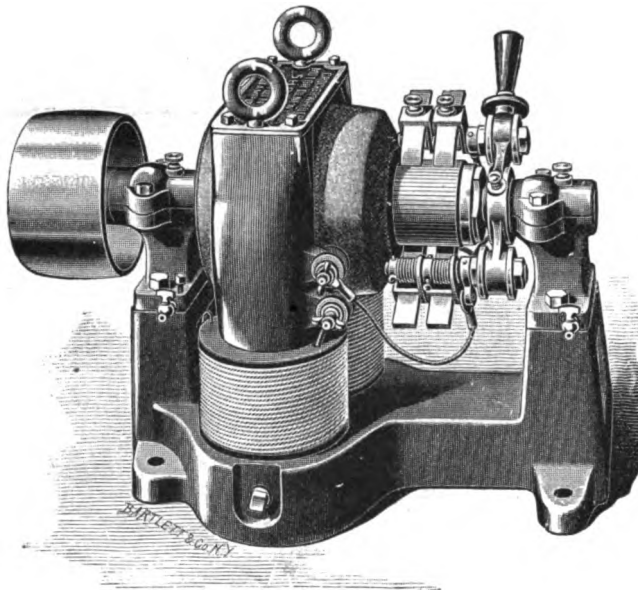
Above trade words apply to 115 volts only. Add to the trade word for the size desired the affix "ed" if 230 volts and "ing" if 500 volts.

Average Speed.

| VOLTS. | HORSE-POWER. | | | | | | | | | | | | |
|----------|---------------|---------------|------|------|------|------|------|----------------|-----|-----|-----|-----|-----|
| | $\frac{1}{4}$ | $\frac{1}{2}$ | 1 | 2 | 3 | 4 | 5 | $7\frac{1}{2}$ | 10 | 15 | 20 | 25 | 35 |
| 115..... | 1690 | 1500 | 1280 | 1090 | 1340 | 1050 | 1000 | 1033 | 975 | 880 | 650 | 735 | 750 |
| 230..... | 1640 | 1485 | 1225 | 1040 | 1480 | 1150 | 1073 | 1060 | 878 | 785 | 700 | 770 | 750 |
| 500..... | 2400 | 1500 | 1265 | 1100 | 1480 | 1050 | 1135 | 1125 | 900 | 820 | 790 | 800 | 800 |

Above prices include fire-proof starting boxes, from ¼-H. P. up. Adjustable base for tightening belt when required will be furnished with 2 H. P. size and over without extra charge. Machines are also wound for slower speeds with proportionately smaller outputs and for any voltage between 60 and 500 volts.

ELECTRIC LIGHT AND POWER SUPPLIES.

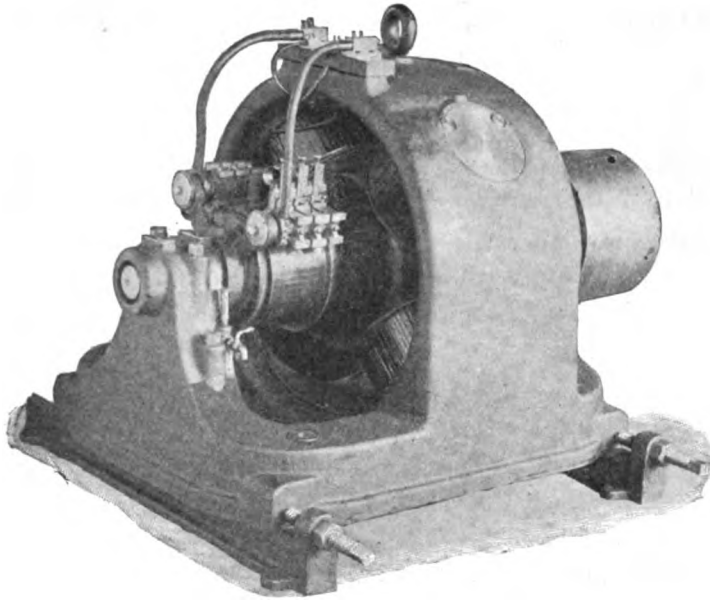
CROCKER-WHEELER
MOTORS AND DYNAMOS.

The prices noted below are for the standard type of bi-polar machines, and include starting boxes for the motors and field rheostats for the dynamos.

| MOTORS. | | | | | | DYNAMOS. | | | | | |
|-------------------|------|--------------|----------------|--------|---------|-------------------|-------|-------|----------------|--------|---------|
| Trade Word. | Size | Horse Power. | Speed R. P. M. | Volts. | Price. | Trade Word. | Size. | K. W. | Speed R. P. M. | Volts. | Price. |
| Mucker | ¼ | ¼ | 1375 | 115 | \$56.50 | Flowret | ¼ | .25 | 1800 | 125 | \$56.50 |
| Flirted | | | 1375 | 230 | 59.00 | Flowery | | | 1900 | 250 | 59.00 |
| Flirting | | | 1500 | 500 | 70.00 | Flown | | | 1950 | 550 | 70.00 |
| Flirtation | ½ | ½ | 1200 | 115 | 69.00 | Fluctuate | ½ | .5 | 1600 | 125 | 69.00 |
| Floatage | | | 1200 | 230 | 73.50 | Fluctuated | | | 1600 | 250 | 73.50 |
| Flock | | | 1350 | 500 | 82.00 | Fluctuating | | | 1750 | 550 | 82.00 |
| Floe | 1 | 1 | 950 | 115 | 104.50 | Fluctuation | 1 | 1. | 1300 | 125 | 104.50 |
| Flog | | | 950 | 230 | 108.00 | Flue | | | 1300 | 250 | 108.00 |
| Flop | | | 1100 | 500 | 111.50 | Fluency | | | 1400 | 550 | 111.50 |
| Floral | 1 | 1½ | 1450 | 115 | 104.50 | Fluent | 1 | 1.5 | 1850 | 125 | 104.50 |
| Floret | | | 1450 | 230 | 108.00 | Fluid | | | 1850 | 250 | 108.00 |
| Florid | | | 1550 | 500 | 111.50 | Fluidity | | | 1950 | 550 | 111.50 |
| Floridity | 2 | 2 | 1000 | 115 | 135.00 | Flume | 2 | 2. | 1200 | 125 | 135.00 |
| Florin | | | 1000 | 230 | 141.50 | Flung | | | 1200 | 250 | 141.50 |
| Floscular | | | 1100 | 500 | 151.00 | Flunky | | | 1300 | 550 | 151.00 |
| Floscule | 2 | 2½ | 1250 | 115 | 135.00 | Fluor | 2 | 2.5 | 1500 | 125 | 135.00 |
| Flosculous | | | 1250 | 230 | 141.50 | Fluoric | | | 1500 | 250 | 141.50 |
| Floss | | | 1400 | 500 | 151.00 | Fluorine | | | 1600 | 550 | 151.00 |
| Flotation | 3 | 3 | 975 | 115 | 163.00 | Flurry | 3 | 3. | 1175 | 125 | 163.00 |
| Flotilla | | | 975 | 230 | 170.00 | Flurried | | | 1175 | 250 | 170.00 |
| Flounder | | | 1000 | 500 | 173.00 | Flurring | | | 1300 | 550 | 173.00 |
| Flounced | 3 | 4 | 1300 | 115 | 163.00 | Flush | 3 | 4. | 1600 | 125 | 163.00 |
| Flounder | | | 1300 | 230 | 170.00 | Flushed | 5 | 5. | 1100 | 125 | 193.00 |
| Floundering | | | 1400 | 500 | 173.00 | Flushing | | | 1100 | 250 | 202.00 |
| Flourish | 5 | 5 | 950 | 115 | 193.00 | Flusted | | | 1100 | 550 | 209.00 |
| Flourished | | | 950 | 230 | 202.00 | | | | | | |
| Flourishing | | | 950 | 500 | 209.00 | | | | | | |

ELECTRIC LIGHT AND POWER SUPPLIES.

WAGNER DIRECT CURRENT POWER MOTORS.



| Type. | MOTORS. | | | | GENERATORS. | | | | | | | Generators and Motors. | | | |
|-------------------|-----------------|----------------|-----------------|----------------|-----------------|-----------------------|--------|----------------|-----------------------|--------|----------------|------------------------|---------|--------------------|--|
| | Mod. Speed. | | Slow Speed. | | Moderate Speed. | | | Slow Speed. | | | Weight in lbs. | Weight in lbs. | Pulley. | | |
| | H. P. | Approx. Speed. | H. P. | Approx. Speed. | K. W. | No. of 50 Watt Lamps. | Speed. | K. W. | No. of 50 Watt Lamps. | Speed. | | | Diam. | Face. | |
| M 1 | 1 | 1500 | $\frac{3}{4}$ | 1200 | $\frac{3}{4}$ | 15 | 2100 | $\frac{1}{2}$ | 10 | 1500 | 170 | 170 | 4 in. | 3 in. | |
| M 2 | 2 | 1500 | $1\frac{1}{2}$ | 1200 | $1\frac{1}{2}$ | 30 | 1850 | 1 | 20 | 1400 | 250 | 250 | 5 in. | $3\frac{1}{2}$ in. | |
| M 3 | 3 | 1400 | 2 | 1100 | 2 | 40 | 1750 | $1\frac{1}{2}$ | 30 | 1350 | 360 | 350 | 6 in. | $3\frac{1}{2}$ in. | |
| M 5 | 5 | 1400 | 4 | 1000 | $4\frac{1}{2}$ | 90 | 1500 | 3 | 60 | 1100 | 470 | 470 | 7 in. | 4 in. | |
| M $7\frac{1}{2}$ | $7\frac{1}{2}$ | 1350 | 5 | 900 | $6\frac{1}{2}$ | 130 | 1450 | $4\frac{1}{2}$ | 90 | 1000 | 707 | 707 | 9 in. | $5\frac{1}{2}$ in. | |
| M10 | 10 | 1300 | $7\frac{1}{2}$ | 850 | 9 | 180 | 1400 | $6\frac{1}{2}$ | 130 | 950 | 880 | 880 | 10 in. | $6\frac{1}{2}$ in. | |
| M15 | 15 | 1200 | 10 | 800 | $12\frac{1}{2}$ | 250 | 1300 | 9 | 180 | 900 | 1250 | 1250 | 11 in. | $7\frac{1}{2}$ in. | |
| M22 $\frac{1}{2}$ | $22\frac{1}{2}$ | 1050 | 15 | 750 | 18 | 360 | 1100 | 14 | 280 | 800 | 1800 | 1800 | 12 in. | $8\frac{1}{2}$ in. | |
| M30 | 30 | 950 | $22\frac{1}{2}$ | 700 | 25 | 500 | 1100 | 18 | 360 | 800 | 2200 | 2200 | 14 in. | $8\frac{1}{2}$ in. | |

Prices on motors include automatic starting boxes, and on generators include field regulating rheostats. Generators are built to over-compound five per cent. at full load, unless otherwise specified.

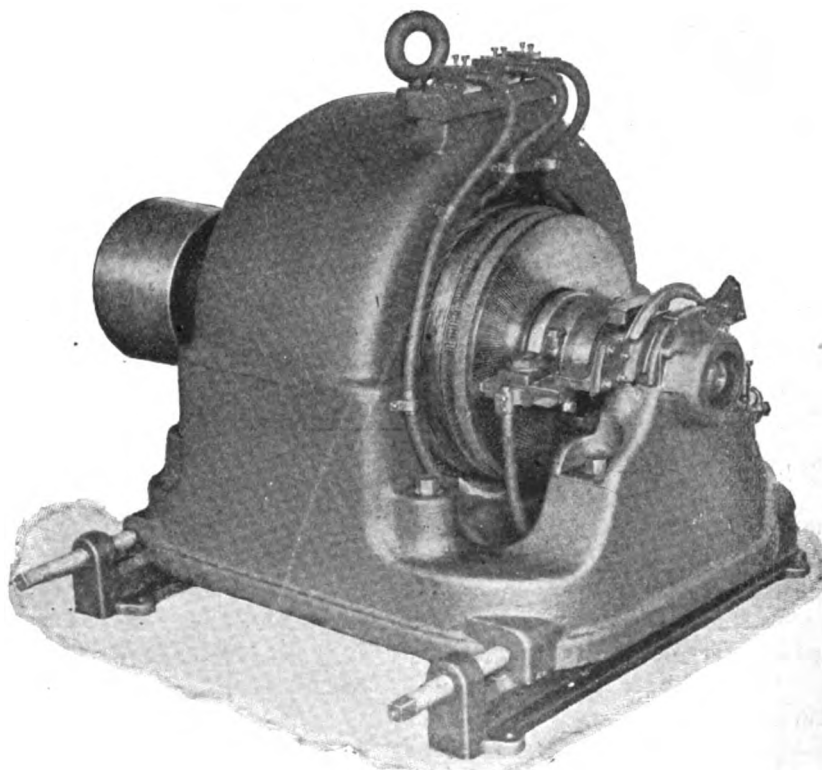
ELECTRIC LIGHT AND POWER SUPPLIES.

SELF-STARTING SINGLE-PHASE ALTERNATING CURRENT POWER MOTORS.

The introduction of this line of self-starting power motors, operating on single phase alternating current circuits, renders circuits of this character as flexible as the various multiphase circuits.

These motors are constructed on established and well-known principles, for various frequencies and of the highest grade of mechanical and electrical construction.

Circulars giving various details and tests will be sent on application. Correspondence invited.



Radial commutator type.

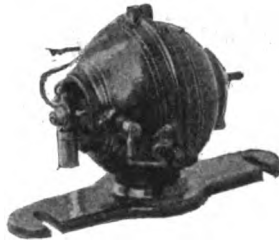
| Trade Word. | Frequency. | Size. | Price. |
|-------------|------------|----------|-----------|
| Leucothrop. | 133 Cycles | 1½ H. P. | \$ 340.00 |
| Levanted. | 60 " | 2 " | 340.00 |
| Levantine. | 133 " | 4 " | 530.00 |
| Leverette. | 60 " | 5 ½ " | 530.00 |
| Levron. | 133 " | 7½ " | 810.00 |
| Levigat. | 60 " | 10 " | 810.00 |
| Levrander. | 133 " | 10 " | 1,040.00 |
| Lexicology. | 60 " | 15 " | 1,040.00 |

ELECTRIC LIGHT AND POWER SUPPLIES.

SMALL LUNDELL POWER MOTORS

For direct current only.

For 110 to 115 volt.
Direct constant potential
circuits.



For primary or storage
battery circuits.

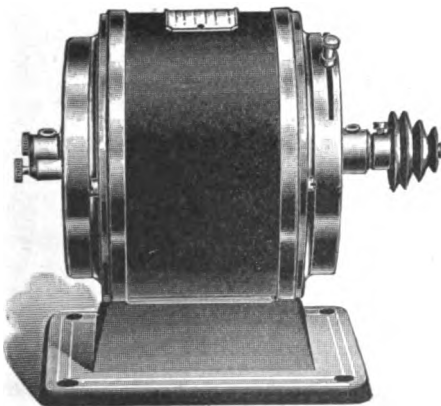
This motor is undoubtedly the most efficient of any of equal size. Runs at the remarkable slow speed of 1,200 revolutions per minute, is noiseless, provided with self-alignment and self-oiling bearings, self-adjusting brushes, grooved pulleys and base as shown. Adapted for all purposes requiring small power.

| Trade Word | Voltage | Amperes | Pulley | Electrical Horse-power | Speed | Price |
|------------------|--------------|---------|------------------|------------------------|-------|---------|
| Discharge..... | 4 Volt Bat'y | 8. | 1 in. | $\frac{1}{8}$ | 1200 | \$28.00 |
| Discharged..... | 110 to 115 | .50 | 1 " | $\frac{1}{8}$ | 1200 | 28.00 |
| Discharging..... | 8 Volt Bat'y | 11. | $1\frac{1}{2}$ " | $\frac{1}{4}$ | 1200 | 32.00 |
| Dischmet..... | 110 to 115 | 1. | $1\frac{1}{2}$ " | $\frac{1}{4}$ | 1200 | 40.00 |

Use trade words when ordering. Not made for higher voltages.

SMALL POWER MOTORS FOR
ALTERNATING CURRENT.

16000 alternation current only.



Type M 2.

This motor is well adapted for dentists' grinding lathes and buffing wheels, sewing machines and in the operation of small static machines and similar work. They run free at about 4000 r. p. m., and with load at about 2200 r. p. m. Provided with regulating and reversing lever, mounted on low, heavy base and nicely finished.

Trade word
Lexigraphy.
Lezarder

Price.
For 16000 alternation 100 volt circuit..... \$35.00
" " " 50 " " 35.00

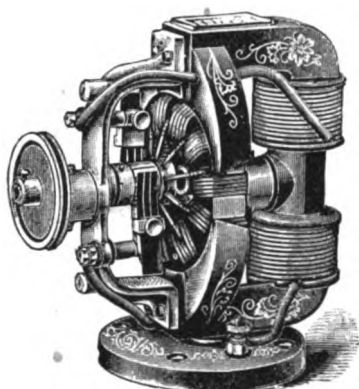
Price includes three cone pulley.

ELECTRIC LIGHT AND POWER SUPPLIES.

EDISON SMALL POWER BATTERY MOTORS.

These motors are of the Paccinotti ring type, are of the highest possible construction and are adapted for all purposes requiring small power.

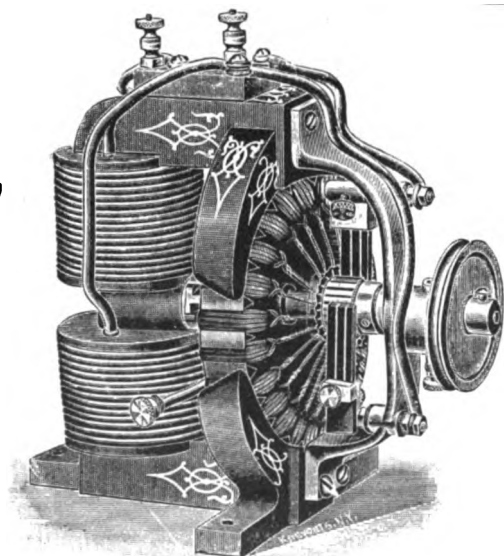
Special attention has been paid in the designing of these motors to secure high efficiency, as with the use of battery it is essential that the cost of maintenance should be reduced to a minimum, motors are furnished with ball bearings.



Edison Battery Motor No. O.

This size is suitable for jewelers' and dental lathes.

| Trade Word. | | Price. |
|-------------|---------------------|---------|
| Liberality. | Motor complete..... | \$15.00 |

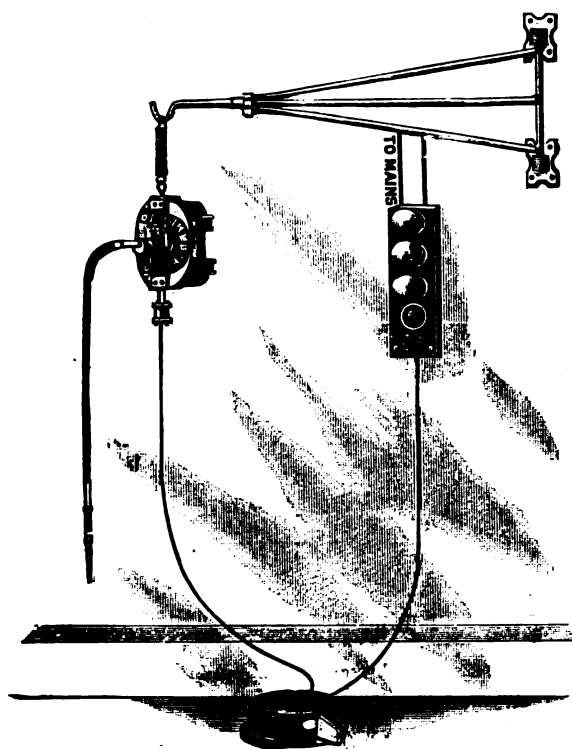


Edison Battery Motor No. OO.

This size suitable for sewing machines, electric pianos, railroad semaphores and similar work.

| Trade Word. | | Price. |
|-------------|---------------------|---------|
| Libidinous. | Motor complete..... | \$25.00 |

ELECTRIC LIGHT AND POWER SUPPLIES.

EDISON SUSPENSION DENTAL
OUTFITS.

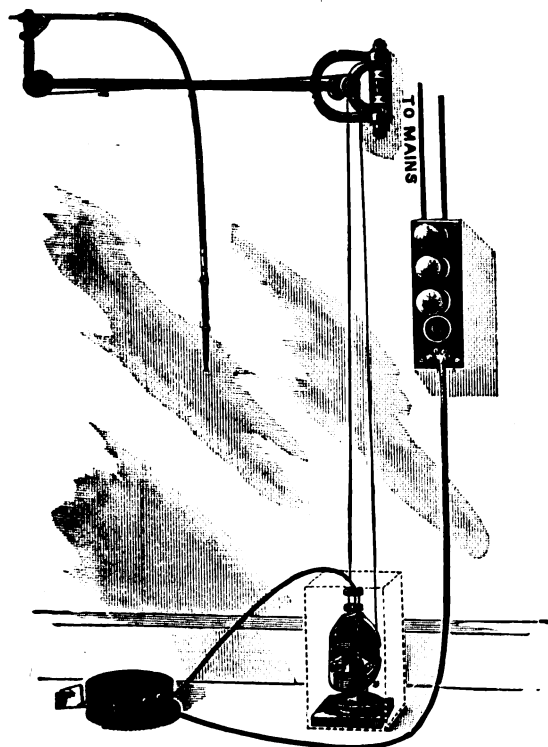
For use on 110 to 120 volt direct current.

Outfit "C."

Consisting of

- One Edison reversing motor with coupling and suspension ring.
- One combination speed regulating rheostat and foot switch, with instantaneous stop attachment and with lamp bank.
- One Simonson extension wall bracket.
- One S. S. White flexible arm with duplex spring, new arm support, and either No. 6 or No. 7 hand piece.

| Trade Word. | | Price. |
|-------------|-----------------------------|---------|
| Librement. | Outfit complete | \$80.00 |
| Lichenic. | Motor only.... | 21.50 |
| Licitation. | Rheostat and lamp bank..... | 30.00 |
| Licking. | Extension wall bracket..... | 10.00 |
| Liegeman. | Flexible arm, etc..... | 18.50 |

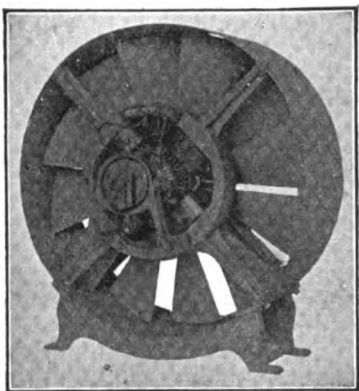
**Outfit "D."**

Consisting of

- One Edison reversing motor with base and cover.
- One combination speed regulating rheostat and foot switch, with instantaneous stop attachment and with lamp bank.
- One Gilbert wall bracket with adjustable movement.
- One S. S. White engine head, flexible arm with duplex spring, new arm support, and either No. 6 or No. 7 hand piece.

| Trade Word. | | Price. |
|-------------|-----------------------------------|----------|
| Liegancy. | Price complete..... | \$105.00 |
| Lifeguard. | Without engine head, etc..... | 80.00 |
| Lifelike. | Motor only... | 25.00 |
| Lifetime. | Rheostat, etc..... | 30.00 |
| Lifter. | Gilbert wall bracket..... | 25.00 |
| Lightbody. | S. S. White engine head, etc..... | 25.00 |

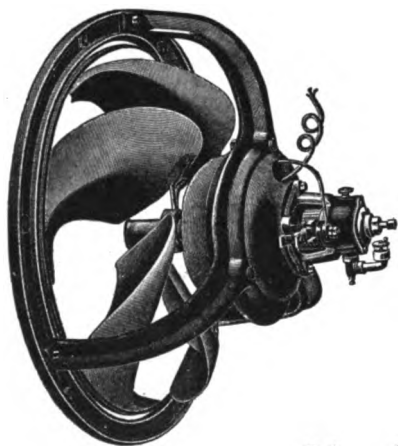
ELECTRIC LIGHT AND POWER SUPPLIES.



FULLER
DIRECT CONNECTED MOTOR
AND
EXHAUST FAN.

| Trade Word. | Size in Inches. | Horse Power. | Approximate Speed. | Cubic ft. of Air Exhausted per Min. | Price. |
|------------------|-----------------|--------------|--------------------|-------------------------------------|----------|
| Lightfoot | 24 | 1. | 1000 | 8792 | \$130.00 |
| Lightsome | 30 | 1.40 | 800 | 13720 | 180.00 |
| Ligneous | 36 | 2.25 | 700 | 20230 | 235.00 |
| Ligniform | 42 | 3.30 | 550 | 26036 | 300.00 |
| Lilaceous | 48 | 4. | 500 | 34168 | 340.00 |
| Lignager | 54 | 4.5 | 450 | 44520 | 380.00 |
| Lignerolle | 60 | 5. | 350 | 48093 | 575.00 |
| Limaceous | 72 | 6. | 300 | 69262 | 650.00 |

Motors are wound for 125, 250 and 500 volt circuits; $\frac{1}{4}$ and 1 H. P. motors wound for 500 volts \$5.00 net extra. All motor series wound in sizes to 72 inches. Automatic release starting boxes furnished with each motor fan.



LUNDELL
DIRECT CONNECTED MOTOR
AND
EXHAUST FAN.

Prices, Speeds, Dimensions, Etc.

| Trade Word. | Size of Fan Inches. | Speed. | Motor Horse Power. | Amperes. | Voltage. | Price. |
|--------------------|---------------------|--------|--------------------|----------|----------|-----------|
| Discerning | 18 | 1000 | $\frac{1}{4}$ | 1.5 | 115 | \$ 220.00 |
| Discerningly | 24 | 775 | $\frac{1}{2}$ | 3. | 115 | 300.00 |
| Discernment | 30 | 650 | 1 | 5. | 115 | 360.00 |
| Disclose | 36 | 600 | 2 | 10. | 115 | 490.00 |
| Disclosed | 42 | 550 | 4 | 20. | 115 | 650.00 |
| Discolor | 48 | 500 | 5 | 25. | 115 | 750.00 |
| Discolored | 60 | 400 | 10 | 30. | 115 | 1 200.00 |
| Discoloring | 72 | 350 | 15 | 50. | 115 | 1,500.00 |

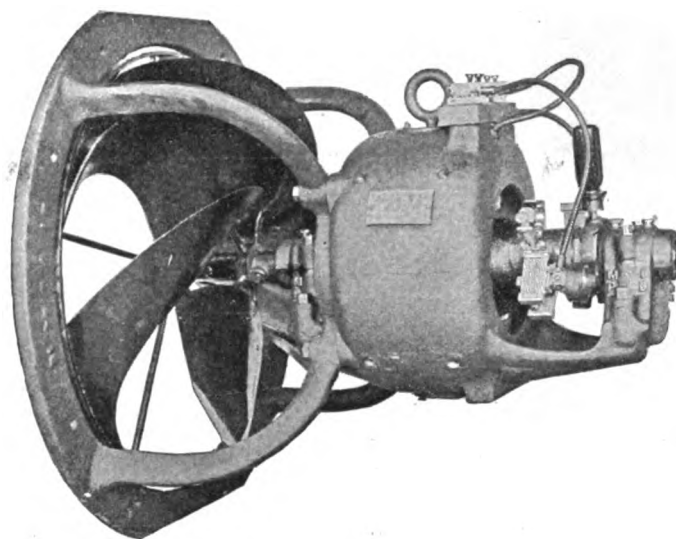
We furnish the above fan outfits for 230 and 500 volt circuits; $\frac{1}{4}$, $\frac{1}{2}$ and 1 horse power, 500 volt motors \$5.00 net extra, for winding and wire on motor and regulator.

Prices include starting and regulating boxes. Use our trade words in ordering from us.

ELECTRIC LIGHT AND POWER SUPPLIES.

WAGNER DIRECT CONNECTED MOTOR AND VENTILATING FANS.

For direct current.



Consisting of Wagner direct current motor on the shaft of which is mounted an improved type of exhaust fan, the motor being attached to the frame of fan by cast spiders. The motors are constructed for continuous operation, having self-oiling bearings and self-adjusting brushes.

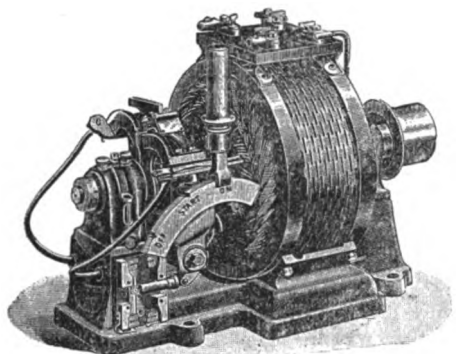
Outfits are furnished as illustrated or with special platforms for attachment to a shelf or to ceiling; are provided with starting and regulating rheostats, giving twelve speeds.

| Trade Word. | Diam. Fan. | No. of Speeds. | Motor Capacity. in H. P. | H. P. of Energy Consumed at Usual Speed. | Capacity at Max. Speed in Cu. Ft. per Min. | Approximate Speeds in Revolutions per Minute. | | | List Price. |
|------------------|---------------|-------------------|-----------------------------------|--|--|--|------|--------|-------------|
| | | | | | | Max. | Min. | Usual. | |
| Limacon | 24 in. | 12 | $\frac{3}{4}$ | $\frac{1}{2}$ | 7,900 | 1,000 | 400 | 800 | \$260.00 |
| Limbed | 30 in. | 12 | $1\frac{1}{2}$ | 1 | 14,000 | 900 | 350 | 750 | 320.00 |
| Limeburner | 36 in. | 12 | $2\frac{1}{2}$ | $1\frac{1}{2}$ | 21,500 | 800 | 325 | 600 | 370.00 |
| Limelight | 48 in. | 12 | 5 | $3\frac{1}{2}$ | 38,200 | 600 | 250 | 400 | 650.00 |
| Limewater | 60 in. | 12 | 10 | 6 | 49,700 | 400 | 175 | 325 | 950.00 |

Add 10 per cent. net for platform or ceiling type.

In ordering give voltage of circuit and also state whether supported, platform or ceiling type is desired.

ELECTRIC LIGHT AND POWER SUPPLIES.



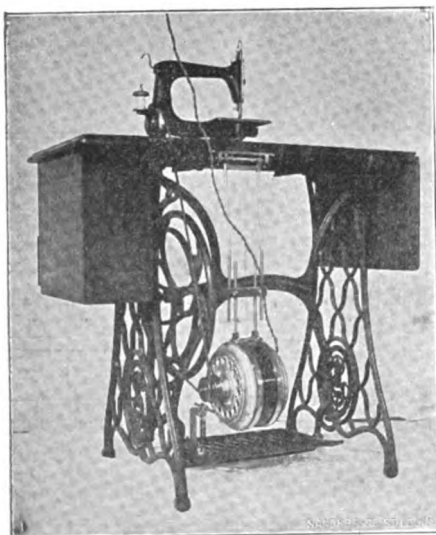
"EMERSON" ALTERNATING CURRENT POWER MOTOR.

These motors are of the induction type, the commutator being used only at starting; no starting box is required. May be run on one side of two or three phase systems with but one transformer.

Non-synchronous. Speed regulation within five per cent. Starting power, 100 per cent. Running power 50 per cent. in excess of rated capacity.

Adapted for all kinds of small power.

| Trade Word. | | Class. | H. P. | Speed. | Proper Transformer Capacity. Watts. | Watts Consumed. Rated Load. | Power Factor Per Ct. | Pulley Diam. Inches. | Width Belt. Inches. | Weight Boxed. | Price. |
|------------------|---|---------|-----------------|--------|-------------------------------------|-----------------------------|----------------------|----------------------|---------------------|---------------|----------|
| Limpingly | For 16,000 Alternation (133 Cycle) Systems. | E. I. 4 | $\frac{1}{4}$ | 1950 | 1500 | 550 | 65 | 3 | 2 | 150 | \$150.00 |
| Limpitude | | E. I. 5 | $\frac{3}{4}$ | 1950 | 1500 | 825 | 67 | 3 | 2 $\frac{1}{4}$ | 160 | 180.00 |
| Linguistic | | E. I. 6 | 1 | 1950 | 2500 | 1100 | 69 | 4 | 2 $\frac{1}{4}$ | 180 | 210.00 |
| Lingulate | For 7,200 Alternation (60 Cycle) Systems. | F. I. 4 | $\frac{1}{4}$ | 1750 | 1000 | 530 | 80 | 3 | 2 | 150 | 150.00 |
| Linkboy | | F. I. 5 | $\frac{3}{4}$ | 1750 | 1500 | 790 | 82 | 3 | 2 $\frac{1}{4}$ | 160 | 165.00 |
| Linkman | | F. I. 6 | 1 | 1750 | 1500 | 1000 | 83 | 4 | 2 $\frac{1}{4}$ | 180 | 180.00 |
| Linocean | | F. I. 7 | 1 $\frac{1}{4}$ | 1750 | 2000 | 1500 | 85 | 4 $\frac{1}{4}$ | 2 $\frac{1}{4}$ | 185 | 216.00 |
| Lionlike | | F. I. 8 | 2 | .... | .... | .... | .... | .... | .... | .... | 250.00 |



INDUCTION SEWING MACHINE MOTOR.

The motor is attached under the table, and leaves the top entirely unobstructed. The machine is started or stopped, and the speed is changed, by a slight change of the position of the treadle. The speed is at all times under the perfect control of the operator.

Being an induction motor, there are no brushes to renew nor commutator to wear out, and the motor should run for years without any attention except oiling.

Furnished for any voltage and number of alternations.

Can furnish for machines running *either from operator or towards operator.*

Unless instructed otherwise, we shall always send motor adapted for machine running *from operator.*

State voltage, alternation, style of socket, and direction machine runs.

| | |
|--|---------|
| Trade Word. | Price. |
| Liseron. Complete, nickel plated | \$40.00 |

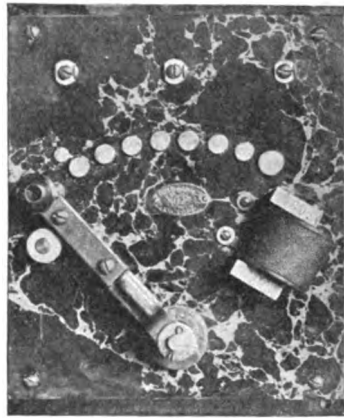
| | |
|-------------|--|
| Trade Word. | Hand wheel of machine running from operator. |
| Lipogram. | 16,000 Alternations, 52 V. |
| Lipitude. | 104 V. |
| Liquescent. | 7,200 Alternations, 52 V. |
| Liquidity. | 104 V. |

| | |
|-------------|--|
| Trade Word. | Hand wheel of machine running toward operator. |
| Liquidness. | 16,000 Alternations, 52 V. |
| Liquation. | 104 V. |
| Liquefy. | 7,200 Alternations, 52 V. |
| Liquid. | 104 V. |

ELECTRIC LIGHT AND POWER SUPPLIES.

"C. & H." MOTOR STARTING RHEOSTATS, WITH AUTOMATIC RELEASE.

Handsome marbled
slate fronts.



The best workmanship
and design.

Style A, front.

| Horse Power. | Trade Word. | VOLTS. | | | | |
|--------------------|----------------|---------|----------------|---------|----------------|---------|
| | | 125 | Trade Word. | 240 | Trade Word. | 500 |
| $\frac{1}{2}$ to 3 | Lixivial..... | \$15.00 | Location..... | \$15.00 | Lointain..... | \$15.00 |
| 5 | Loadstar..... | 25.00 | Lockless..... | 25.00 | Loitering..... | 25.00 |
| $7\frac{1}{2}$ | Loathing..... | 40.00 | Lockram..... | 30.00 | Lollard..... | 30.00 |
| 10 | Lobated..... | 43.00 | Locomotion... | 33.00 | Lollardism... | 33.00 |
| 15 | Lobbing..... | 50.00 | Loeronan..... | 45.00 | Lombardic.... | 40.00 |
| 20 | Lobscouse..... | 55.00 | Locular..... | 50.00 | Lomentage... | 45.00 |
| 25 | Lobworm..... | 65.00 | Lodestone..... | 55.00 | Lombrical.... | 50.00 |
| 30 | Lobelet..... | 73.00 | Lodgeable..... | 65.00 | Longheaded... | 60.00 |
| 35 | Lobelia..... | 80.00 | Lodgers..... | 70.00 | Longlegs..... | 70.00 |
| 40 | Lobstered..... | 90.00 | Logic..... | 80.00 | Longtail..... | 80.00 |
| 50 | Localement... | 115.00 | Logan..... | 100.00 | Longtemps... | 100.00 |
| 75 | Localism..... | 190.00 | Loggerhead... | 165.00 | Lon : ways.... | 150.00 |
| 100 | Localized..... | 250.00 | Logarithm.... | 225.00 | Loobill..... | 200.00 |
| 150 | Locataire..... | 325.00 | Logistical.... | 300.00 | Looby..... | 275.00 |
| 200 | Located..... | 420.00 | Logotype.... | 400.00 | Looking..... | 350.00 |

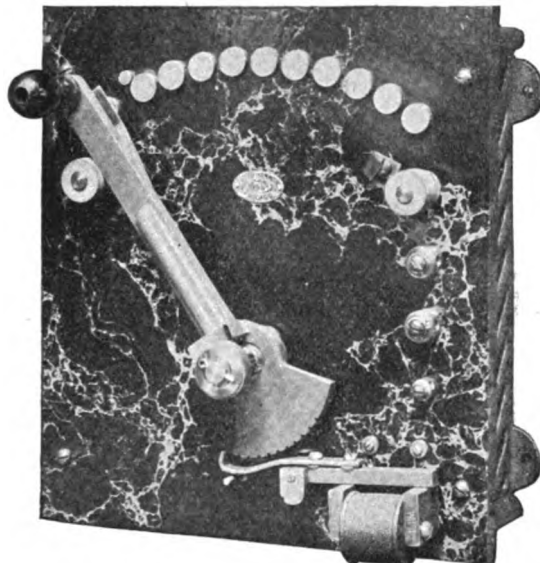
Safety motor starting rheostats, with spring lever, but without magnet, 10 to 15 per cent less.

In ordering always state horse power, voltage and name of maker of motor. Whenever possible, state also the resistance of the motor fields.

Furnished in four styles of front, varying according to the current carrying capacity required.

ELECTRIC LIGHT AND POWER SUPPLIES.

"C. & H." COMBINED MOTOR STARTING BOX AND SPEED REGULATOR.



Handsome marbled slate fronts.

Automatic release from each point.

With the motor running absolutely idle the Standard Speed Regulator would produce only a very small reduction of speed with all the resistance in circuit, while at full load the speed would be reduced 50 per cent. or more. It is therefore, of the first importance when ordering speed regulators to furnish us with as complete data as possible. We should know:

- 1st. Horse power of motor.
- 2nd. Voltage of motor.
- 3rd. Normal speed of motor.
- 4th. Lowest speed desired.
- 5th. The load on the motor at the lowest speed desired.
- 6th. The kind of machinery attached to the motor.
- 7th. If for fan work, the per cent. of speed reduction desired.
- 8th. If for pumping water, the per cent. of speed reduction desired, as well as whether the water is pumped under a constant pressure, as into an open tank, or under variable pressure, as into a compression tank.
- 9th. The name of the maker of the motor.

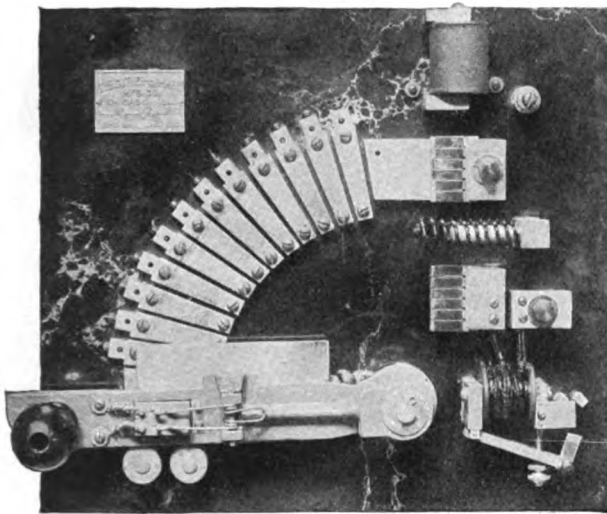
The above data should always be furnished us, when ordering to secure best results.

Motor Speed Regulators.

| Trade Word. | Horse Power. | 120 VOLTS. | | 220 VOLTS. | | 500 VOLTS. | |
|-------------|----------------|-------------------------|----------------------------|-------------------------|----------------------------|-------------------------|----------------------------|
| | | With Automatic Release. | Without Automatic Release. | With Automatic Release. | Without Automatic Release. | With Automatic Release. | Without Automatic Release. |
| Loophole. | $\frac{1}{4}$ | \$ 22.00 | \$ 15.00 | \$ 22.00 | \$ 15.00 | \$ 22.00 | \$ 15.00 |
| Loopered. | $\frac{1}{2}$ | 28.00 | 18.00 | 28.00 | 18.00 | 28.00 | 18.00 |
| Looping. | 1 | 35.00 | 22.00 | 35.00 | 22.00 | 35.00 | 22.00 |
| Loquacity. | 2 | 42.00 | 30.00 | 42.00 | 30.00 | 42.00 | 30.00 |
| Loquacious. | 3 | 52.00 | 40.00 | 52.00 | 40.00 | 52.00 | 40.00 |
| Loqueteau. | 5 | 67.00 | 55.00 | 67.00 | 55.00 | 67.00 | 55.00 |
| Loquette. | $7\frac{1}{2}$ | 85.00 | 70.00 | 85.00 | 70.00 | 85.00 | 70.00 |
| Lordom. | 10 | 100.00 | 85.00 | 100.00 | 85.00 | 100.00 | 85.00 |
| Lordling. | 15 | 125.00 | 110.00 | 120.00 | 105.00 | 120.00 | 105.00 |
| Loresman. | 20 | 155.00 | 135.00 | 145.00 | 125.00 | 145.00 | 125.00 |
| Lorgnade. | 25 | 185.00 | 160.00 | 175.00 | 150.00 | 175.00 | 150.00 |
| Loricat. | 30 | 215.00 | 185.00 | 205.00 | 180.00 | 200.00 | 175.00 |
| Lorication. | 35 | 250.00 | 210.00 | 240.00 | 205.00 | 235.00 | 200.00 |
| Lorigade. | 40 | 295.00 | 245.00 | 285.00 | 235.00 | 275.00 | 225.00 |
| Lorgnerie. | 50 | 360.00 | 300.00 | 340.00 | 290.00 | 325.00 | 275.00 |
| Lormer. | 75 | 500.00 | 435.00 | 450.00 | 400.00 | 425.00 | 375.00 |

NOTE:—The style of front varies with the current carrying capacity required.

ELECTRIC LIGHT AND POWER SUPPLIES.



STYLE G, FRONT (with renewable carbon brushes.)

THE C. & H. COMBINED MOTOR STARTER & AUTOMATIC CIRCUIT BREAKER.

In addition to the attachment for releasing the box in the event of an open circuit, this type of box has an automatic circuit breaker which can be set for any flow of current or degree of overload, not exceeding 50 per cent. of the rated capacity of the motor, by means of the accurately calibrated scale. This scale can also be used to determine the amount of current being consumed by the motor.

| H. P. | Trade Word. | Volts 110 to 125 | Trade Word. | Volts 220 to 240. | Trade Word. | Volts 500 |
|--------------------|------------------|---------------------|------------------|----------------------|-----------------|--------------|
| $\frac{1}{4}$ to 3 | Lottissage | \$ 25.00 | Lucernal | \$ 25.00 | Luncheon | \$ 25.00 |
| 5 | Lotaphages | 37.00 | Luchador | 37.00 | Lunette | 37.00 |
| $7\frac{1}{2}$ | Lourdand | 55.00 | Lucidura | 42.00 | Lungless | 42.00 |
| 10 | Lourdement | 58.00 | Lucidness | 45.00 | Lungwort | 45.00 |
| 15 | Loutishly | 65.00 | Lucre | 60.00 | Lupercals | 52.00 |
| 20 | Louveter | 70.00 | Luculent | 65.00 | Lurcher | 58.00 |
| 25 | Lovebird | 85.00 | Ludicrous | 70.00 | Luridness | 63.00 |
| 30 | Lovesick | 95.00 | Lugareno | 85.00 | Lurker | 75.00 |
| 35 | Loving | 105.00 | Lugubrious | 90.00 | Lustihood | 90.00 |
| 40 | Lovingness | 115.00 | Lukewarm | 100.00 | Lustiness | 100.00 |
| 50 | Lowborn | 140.00 | Lumachelle | 115.00 | Lustrage | 115.00 |
| 75 | Lowbred | 220.00 | Lumbered | 185.00 | Lustrous | 175.00 |
| 100 | Loweringly | 280.00 | Luminosity | 250.00 | Lustwort | 225.00 |
| 150 | Loyalment | 375.00 | Lunatic | 335.00 | Lusty | 300.00 |
| 200 | Lubricator | 480.00 | Lunatique | 440.00 | Lute | 380.00 |

NOTE.—The style of front furnished varies with the current carrying capacity required.

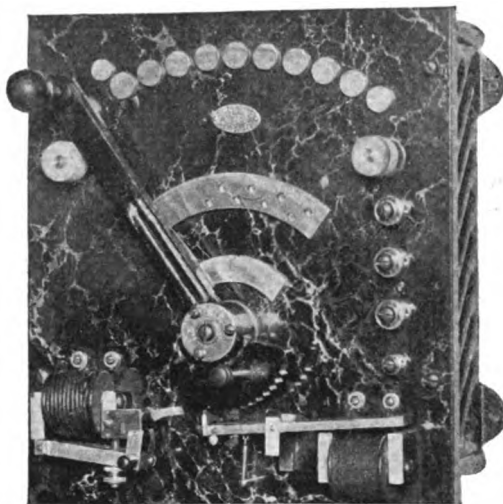
In ordering, give H. P. voltage and name of maker of motor. Wherever possible state also the resistance of motor fields.

ELECTRIC LIGHT AND POWER SUPPLIES.

"C. & H." COMBINED MOTOR SPEED REGULATOR AND AUTOMATIC CIRCUIT BREAKER.

Regulates the speed
of the motor.

Especially adapted
for ventilating
fans.



Type B, Front (Patented.)

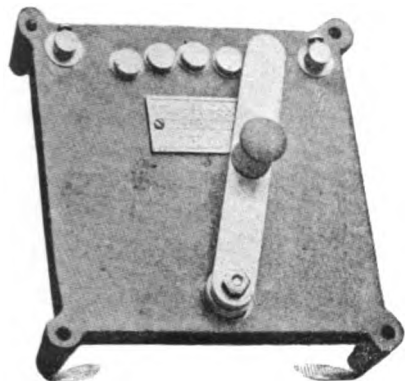
The circuit breaker attachment affords absolute protection from overload and interrupted current.

| H. P. | Trade Word. | 110 to 125 Volts. | Trade Word. | 220 to 240 Volts. | Trade Word. | 500 Volts. |
|----------------|-----------------------|----------------------|----------------------|----------------------|----------------------|------------|
| $\frac{1}{4}$ | Luttestring | \$ 32.00 | Earnestly | \$ 32.00 | Ebrancher | \$ 32.00 |
| $\frac{1}{2}$ | Lutheran | 38.00 | Earthen | 38.00 | Ebrillade | 38.00 |
| 1 | Lutulent | 45.00 | Easeless | 45.00 | Ebroner | 45.00 |
| 2 | Luxate | 52.00 | Easterling | 52.00 | Ebullition | 52.00 |
| 3 | Luxation | 62.00 | Eatable | 62.00 | Eburnean | 62.00 |
| 5 | Luxuriant | 80.00 | Eating | 80.00 | Eacher | 80.00 |
| $7\frac{1}{2}$ | Luxury | 100.00 | Eatwell | 100.00 | Ecaille | 100.00 |
| 10 | Lychries | 115.00 | Eavesdrop | 112.00 | Ecarteler | 112.00 |
| 15 | Lycoperdon | 140.00 | Ebarbage | 135.00 | Echatic | 135.00 |
| 20 | Lymph | 170.00 | Ebauche | 160.00 | Eccentric | 160.00 |
| 25 | Lymphatic | 205.00 | Ebbing | 190.00 | Ecclesiast | 190.00 |
| 30 | Lyric | 235.00 | Ebeniste | 220.00 | Ecervele | 215.00 |
| 35 | Eagerly | 275.00 | Eblouir | 260.00 | Echafund | 250.00 |
| 40 | Earldom | 320.00 | Ebonize | 305.00 | Echappade | 290.00 |
| 50 | Earliness | 390.00 | Ebracetate | 365.00 | Echevean | 345.00 |
| 75 | Mucite | 535.00 | Mucilage | 475.00 | Mucidness | 450.00 |

NOTE.—The style of front furnished varies with the current carrying capacity required. See page 293 for information desired when ordering.

ELECTRIC LIGHT AND POWER SUPPLIES.

SMALL MOTOR SPEED CONTROLLERS.



Square type with *interchangeable* enameled resistance sections.

The special feature of this rheostat lies in the fact that the resistance is contained in enameled sections that can be taken out and replaced in the event of injury.

Size 5 in. x 5 in., 4 sections, total watt capacity..... 100
 " 7 " x 7 " 5 " " " " 150
 " 12 " x 12 " 10 " " " " 500

The above is watt capacity of the controller, not the motor it controls.

For 125 Volts.

| Trade Word. | No. | Size Inches. | No. Steps. | H. P. of Motor. | Max. Amp. for Motor. | Ohms of Rheostat. | Price. |
|----------------|-----|--------------|------------|-----------------|----------------------|-------------------|---------|
| Echelon..... | 10 | 5 x 5 | 4 | $\frac{1}{16}$ | 5 | 150 | \$ 3.50 |
| Echinate..... | 11 | 5 x 5 | 4 | $\frac{1}{8}$ | 1. | 120 | 3.50 |
| Echinidau..... | 12 | 5 x 5 | 4 | $\frac{1}{4}$ | 1.5 | 50 | 3.50 |
| Ehoing..... | 13 | 7 x 7 | 5 | $\frac{1}{4}$ | 1.5 | 70 | 5.50 |
| Chometry..... | 14 | 7 x 7 | 5 | $\frac{1}{4}$ | 2. | 40 | 5.50 |
| Eclair..... | 15 | 7 x 7 | 5 | $\frac{1}{2}$ | 4. | 12 | 5.50 |
| Eclairage..... | 16 | 12 x 12 | 10 | 1 | 8. | 10 | 12.50 |
| Eclampsy..... | 17 | 12 x 12 | 10 | $1\frac{1}{2}$ | 12. | 5 | 12.50 |
| Eclat..... | 18 | 12 x 12 | 10 | 2 | 16. | 2.5 | 12.50 |

For 250 Volts.

| | | | | | | | |
|-----------------|-----|---------|----|----------------|-----|-----|---------|
| Eclectic..... | 210 | 5 x 5 | 4 | $\frac{1}{8}$ | .4 | 350 | \$ 3.50 |
| Eclipse..... | 211 | 5 x 5 | 4 | $\frac{1}{6}$ | .5 | 256 | 3.50 |
| Eclipsing..... | 212 | 7 x 7 | 5 | $\frac{1}{6}$ | .75 | 175 | 5.50 |
| Ecliptique..... | 213 | 7 x 7 | 5 | $\frac{1}{4}$ | 1.3 | 125 | 5.50 |
| Eclogue..... | 214 | 7 x 7 | 5 | $\frac{1}{2}$ | 2. | 45 | 5.50 |
| Ecolier..... | 215 | 12 x 12 | 10 | 1 | 4. | 35 | 12.50 |
| Economist..... | 216 | 12 x 12 | 10 | $1\frac{1}{2}$ | 6. | 20 | 12.50 |
| Ecorcer..... | 217 | 12 x 12 | 10 | 2 | 8. | 12 | 12.50 |

For 500 Volts.

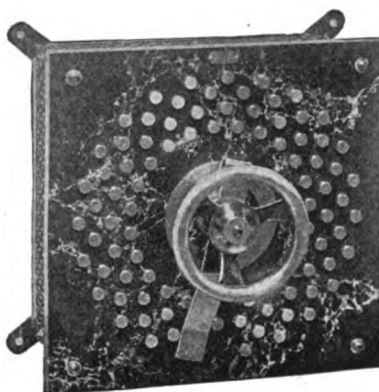
| | | | | | | | |
|-----------------|-----|---------|----|----------------|-----|-----|---------|
| Ecosseur..... | 512 | 7 x 7 | 5 | $\frac{1}{4}$ | .25 | 900 | \$ 6.50 |
| Ecremer..... | 513 | 7 x 7 | 5 | $\frac{1}{4}$ | .5 | 600 | 6.50 |
| Ecrevisse..... | 515 | 12 x 12 | 10 | $\frac{1}{2}$ | 1. | 400 | 13.00 |
| Ecriteau..... | 516 | 12 x 12 | 10 | 1 | 2. | 150 | 13.00 |
| Ecstatical..... | 517 | 12 x 12 | 10 | $1\frac{1}{2}$ | 3. | 75 | 13.00 |

ELECTRIC LIGHT AND POWER SUPPLIES.

"C. & H." DYNAMO FIELD REGULATORS.

No lead wires.

Insulation resistance.



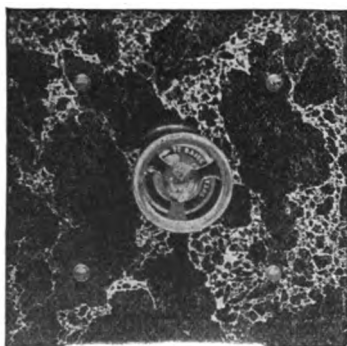
Wall type.

Cool running.

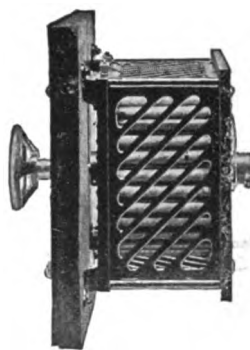
Fire-proof.

Ornamental.

REGULATORS FOR REAR OF SWITCH BOARD.



Front of switch board.



Side view.

The "C. & H." Dynamo Field Regulators are constructed with the view of giving very close regulation by a large number of steps as well as by a careful gradation of the resistance between steps. The heat is dissipated at a low temperature and excellent ventilation given.

They are constructed wholly of slate or metal, possessing the highest of fire-proof qualities that makes their use very desirable.

ELECTRIC LIGHT AND POWER SUPPLIES.

C. & H. DYNAMO FIELD REGULATORS.

These prices are based upon the heat dissipating capacity of the rheostat, *not* upon the rated K. W. of the dynamo with which they are used.

| GENERATOR. | | | RHEOSTAT. | | | | List Price. | |
|-----------------------|--------|---------------------------|---------------------|-------|------------------|--------------------------|-------------|--------------------------|
| Approximate K. W. | Volts. | No. of 16 C. P. Lamps. | Maximum Amperes. | Ohms. | No. of Steps. | Dimensions in Inches. | Wall Type. | Rear of Switch Board. |
| 3 | 125 | 50 | 1.0 | 150 | 20 | 9x8x3 | \$ 18.00 | \$ 22.00 |
| 6 | 125 | 100 | 1.8 | 100 | 20 | 9x8x3 | 18.00 | 22.00 |
| 10 | 125 | 175 | 2.5 | 75 | 20 | 9x8x3 | 20.00 | 24.00 |
| 10 | 125 | 175 | 2.5 | 75 | 30 | 13x13x8 | 24.00 | 29.00 |
| 15 | 125 | 250 | 3.2 | 50 | 30 | 13x13x8 | 26.00 | 31.00 |
| 20 | 125 | 350 | 4.0 | 35 | 30 | 13x13x8 | 28.00 | 33.00 |
| 25 | 125 | 425 | 5.0 | 30 | 45 | 13x13x8 | 30.00 | 35.00 |
| 30 | 125 | 500 | 6.0 | 25 | 45 | 13x13x8 | 32.00 | 37.00 |
| 45 | 125 | 800 | 9.0 | 15 | 45 | 13x13x10 | 34.00 | 39.00 |
| 50 | 125 | 900 | 10.0 | 12 | 45 | 13x13x10 | 38.00 | 43.00 |
| 60 | 125 | 1100 | 12.0 | 12 | 45 | 13x13x10 | 40.00 | 45.00 |
| 75 | 125 | 1400 | 14.0 | 10 | 60 | 15x15x10 | 45.00 | 50.00 |
| 100 | 125 | 1800 | 16.0 | 8 | 60 | 15x15x10 | 50.00 | 55.00 |
| 150 | 125 | 2700 | 18.0 | 7 | 60 | 15x15x12 | 60.00 | 65.00 |
| 200 | 125 | 3600 | 20.0 | 7 | 60 | 15x15x12 | 75.00 | 80.00 |
| 300 | 125 | 5400 | 26.0 | 5 | 60 | 15x15x14 | 90.00 | 95.00 |
| 500 | 125 | 9000 | 45.0 | 3 | 70 | 18x18x14 | 125.00 | 135.00 |
| 750 | 125 | 13500 | 65.0 | 2 | 85 | 20x20x14 | 175.00 | 185.00 |
| 1000 | 125 | 18000 | 85.0 | 2 | 90 | 24x24x14 | 250.00 | 260.00 |
| Output in Amperes. | | | | | | | | |
| 3 | 250 | 12 | .4 | 800 | 20 | 9x8x3 | 18.00 | 22.00 |
| 6 | 250 | 24 | .6 | 500 | 20 | 9x8x3 | 18.00 | 22.00 |
| 10 | 250 | 40 | .8 | 350 | 30 | 13x13x8 | 24.00 | 29.00 |
| 15 | 250 | 60 | 1.2 | 225 | 30 | 13x13x8 | 26.00 | 31.00 |
| 20 | 250 | 80 | 1.6 | 175 | 30 | 13x13x8 | 28.00 | 33.00 |
| 25 | 250 | 100 | 2.0 | 150 | 45 | 13x13x8 | 30.00 | 35.00 |
| 30 | 250 | 120 | 2.4 | 125 | 45 | 13x13x8 | 32.00 | 37.00 |
| 45 | 250 | 180 | 3.5 | 80 | 45 | 13x13x9 | 34.00 | 39.00 |
| 60 | 250 | 240 | 4.0 | 70 | 45 | 13x13x10 | 40.00 | 45.00 |
| 75 | 250 | 300 | 4.5 | 60 | 60 | 15x15x10 | 45.00 | 50.00 |
| 100 | 250 | 400 | 6.0 | 50 | 60 | 15x15x10 | 50.00 | 55.00 |
| 150 | 250 | 600 | 7.0 | 40 | 60 | 15x15x12 | 60.00 | 65.00 |
| 200 | 250 | 800 | 8.5 | 30 | 60 | 15x15x12 | 75.00 | 80.00 |
| 25 | 500 | 50 | 1.0 | 600 | 30 | 13x13x6 | 36.00 | 41.00 |
| 50 | 500 | 100 | 2.0 | 300 | 30 | 13x13x8 | 40.00 | 45.00 |
| 75 | 500 | 150 | 3.0 | 200 | 45 | 13x13x8 | 45.00 | 50.00 |
| 100 | 500 | 200 | 4.0 | 125 | 45 | 13x13x8 | 50.00 | 55.00 |
| 150 | 500 | 300 | 6.0 | 100 | 45 | 13x13x10 | 60.00 | 65.00 |
| 200 | 500 | 400 | 8.0 | 75 | 60 | 15x15x10 | 75.00 | 80.00 |
| 300 | 500 | 600 | 9.0 | 65 | 60 | 15x15x12 | 90.00 | 95.00 |
| 500 | 500 | 1000 | 10.0 | 60 | 70 | 18x18x12 | 120.00 | 130.00 |
| 750 | 500 | 1500 | 15.0 | 60 | 70 | 18x18x14 | 175.00 | 185.00 |
| 1000 | 500 | 2000 | 20.0 | 50 | 85 | 20x20x14 | 225.00 | 235.00 |
| 1500 | 500 | 3000 | 30.0 | 50 | 90 | 24x24x14 | 300.00 | 310.00 |

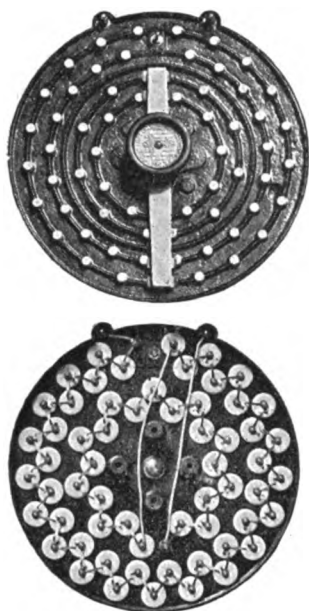
READ THIS BEFORE ORDERING.

The only proper way to order a Field Rheostat is by giving the resistance required in the rheostat and carrying capacity when the resistance is all cut in and all cut out. If this cannot be given we should know the resistance of the shunt coils.

It is a very difficult and uncertain matter to furnish a satisfactory field regulator without this data, as the field windings on the various makes of dynamos differ greatly.

The ratings given in the above table for the different K. W. capacities are only approximations—averages of the data of several standard makes. In any event, we should receive with each order the K. W., horse-power or lamp capacity of the dynamo, its voltage and maker's name and type. With this information, we can, in most cases, decide correctly upon the proper rheostat to furnish.

ELECTRIC LIGHT AND POWER SUPPLIES.



"UNIVERSAL" ENAMEL FIELD RHEOSTATS.

The most important feature in these rheostats is having each step of resistance independent, detachable and of small area. Each section of the resistance is made up of a small steel enameled disc, the resistance being embedded in the enamel, and having copper strip terminals arranged so they are easily connected in series, one disc with another, as shown in the illustration of the back of the plate. Each disc has a hole in its center which coincides with one on the plate when mounted, through which a flat headed bolt is passed from the front of the plate under the nut of which, when screwed in place, the terminals are clamped, the flat head making the contact point on the front to engage the usual movable arm.

All are made for mounting on front or back of board, as ordered, and the same template for drilling the board answers for all sizes of dynamo field rheostats referred to in this circular, thereby avoiding the chance of having holes drilled wrong, due to any mistake in ordering.

FOR 125 VOLTS—SINGLE PLATES.

| For Front of Switch Board use Trade Word in this column. | For Back of Switch Board use Trade Word in this column. | Maximum Amperes with One Section of Resistance in Circuit. | Maximum Ohms in Rheostat. | Minimum Ohms in Field on 125 Volts re- quired to keep Amperes with- in limit stated in column 1. | State in your order maximum voltage at dynamo, resistance of shunt field circuit (cold), also maximum amperes required in shunt field circuit. |
|---|--|--|------------------------------------|--|--|
| Ectypal. | Electary. | .5 | 400. | 250. | No. 1000. |
| Ecumage. | Electorate. | 1. | 160. | 115. | 25 Steps. |
| Ecumenical. | Electricial. | 1.25 | 144. | 92. | 9 in. diameter. |
| Ecurie. | Electro. | 1.50 | 123. | 77. | Front of Board |
| Edacity. | Elegance. | 1.75 | 105. | 67. | \$15.00. |
| Edenized. | Elegist. | 2. | 85. | 59. | Back of Board |
| Edentalous. | Elegy. | 2.5 | 60. | 48. | \$24.00. |
| Edgemark. | Element. | 3. | 51. | 40. | |
| Edict. | Elementary. | 3.5 | 41.6 | 34. | |
| Edificant. | Elephant. | 4. | 38. | 30. | |
| Editioner. | Elevate. | 3. | 140. | 40. | No. 1001. |
| Editorial. | Elevation. | 3.5 | 95. | 34. | 31 Steps. |
| Effervesce. | Elicit. | 4. | 70. | 30.4 | 10½ in. diameter. |
| Effluence. | Elicitate. | 4.5 | 44. | 27. | Front of Board |
| Effluvium. | Eligible. | 5. | 28. | 24. | \$16.00. |
| Effrayment. | Elision. | 3. | 273. | 40. | Back of Board |
| Effusively. | Elleborine. | 4. | 162. | 30. | \$25.00. |
| Egalement. | Elocution. | 5. | 56. | 24. | No. 1002. |
| Egalite. | Elongation. | 6. | 26. | 19. | 45 Steps. |
| Egeran. | Eloquently. | 7. | 20. | 17.5 | 12 in. diameter. |
| Eglantine. | Elucidate. | 5. | 182. | 24. | Front of Board |
| Egoteze. | Eluding. | 7. | 39. | 17.5 | \$20.00. |
| Egrefin. | Elvan. | 8. | 24.5 | 15.6 | Back of Board |
| Egrenage. | Elysian. | 9. | 17. | 14. | \$25.00. |
| Egregious. | Elytron. | 10. | 14.5 | 12.4 | Front of Board |
| Eider. | Embalm. | 10.5 | 11.4 | 11.5 | \$26.00. |
| Eidograph. | Emballage. | 1. | 1674. | 112.5 | Back of Board |
| Ejaculate. | Embander. | 8. | 80. | 16. | \$35.00. |
| Elaidic. | Embank. | 10. | 25.4 | 12.4 | No. 1003. |
| Elancement. | Embankment. | 12. | 14.4 | 10.4 | 60 Steps. |
| Elaud. | Embarrass. | 13. | 10.3 | 9.4 | 15 in. diameter. |
| Elaterium. | Embaumer. | 14. | 9.3 | 8.9 | Front of Board |
| | | | | | \$34.00. |
| | | | | | Back of Board |
| | | | | | \$43.00. |

ELECTRIC LIGHT AND POWER SUPPLIES.**"UNIVERSAL" ENAMEL FIELD RHEOSTATS.****For 125 Volts.—Double Plates.**

| For Front of Switch-Board, use the Trade Word in this column. | For Back of Switch-Board, use the Trade Word in this column. | Maximum Amperes with One Section of Resistance in Circuit. | Maximum Ohms in Rheostat. | Min'tum Ohms in Field, on 125 Volts, required to keep Amperes within limit stated in column 1. | State in your order maximum voltage at dynamo, resistance of shunt field circuit (cold), also maximum amperes required in shunt field circuit. |
|--|--|--|--|--|--|
| Emblavure. Emblaze. | Enerier. Encrinite. | 12.5 14. | 13.3 10.1 | 9.8 8.7 | No. 1006, 45 Steps, 12 in. diameter, Front of Board \$37.00. Back of Board \$46.00. |
| Emblazonry. Emblem. Emblematic. Emboiter. Embolus. Embonpoint. | Encrust. Encyclical. Edmical. Endicter. Endive. Encmost. | 12.5 14. 16. 18. 20. 21. | 35. 19.4 12.3 8.7 7.3 5.7 | 9.8 8.7 7.7 6.9 6.1 5.7 | No. 1007, 60 Steps, 15 in. diameter, Front of Board \$46.00. Back of Board \$55.00. |
| Emboss. Emboucher. Embrace. Embrogate. Embrute. Emerald. Emetical. Emetine. | Endormir. Endorse. Endroit. Energise. Enfant. Enfilade. Enfold. Enfoldment. | 12. 14. 16. 18. 22. 24. 26. 28. | 213. 100. 25. 20. 9. 7. 5.1 4.6 | 10. 8. 7.5 6.8 5.7 5.2 4.8 4.5 | No. 1008, 81 Steps, 16 in. diameter, Front of Board \$56.00. Back of Board \$65.00. |

For 250 Volts.—Single Plates.

| For Front of Switch-Board, use the Trade Word in this column. | For Back of Switch-Board, use the Trade Word in this column. | Maximum Amperes with One Section of Resistance in Circuit. | Maximum Ohms in Rheostat. | Min'tum Ohms in Field, on 250 Volts, required to keep Amperes within limit stated in column 1. | State in your order maximum voltage at dynamo, resistance of shunt field circuit (cold), also maximum amperes required in shunt field circuit. |
|---|---|--|--|--|--|
| Emication. Eminence. Emmenager. Emittent. Emollient. Emolument. Emouvoir. | Enforcer. Englouter. Engrafted. Engrasp. Engraver. Enhydrite. Enlaidir. | .5 1. 1.25 1.5 1.75 2. 2.25 | 480. 250. 238. 218. 161. 136. 102. | 360. 240. 192. 167. 139. 122. 108. | No. 1020, 25 Steps, 9 in. diameter, Front of Board \$15.00. Back of Board \$24.00. |
| Empasm. Empecher. Emplead. Emporetic. | Enlarge. Enneatic. Enraptured. Ensconse. | .5 1.5 2. 2.5 | 600. 237. 186. 114. | 360. 167. 122. 98. | No. 1021, 31 Steps, 10 1/4 in. diameter, Front of Board \$16.00. Back of Board \$25.00. |
| Emprunt. Empyema. Empyrean. Emulous. | Entelechy. Enthral. Entirety. Entity. | .5 2. 3. 4. | 900. 317. 143. 59. | 360. 122. 82. 61. | No. 1022, 45 Steps, 12 in. diameter, Front of Board \$20.00. Back of Board \$29.00. |
| Emulously. Encardion. Encarpus. Encaustic. Encave. | Entoiling. Entrails. Entreaty. Entrepol. Entretamps. | .5 2. 3. 4. 5. | 1200. 467. 238. 99. 48. | 360. 122. 82. 61. 49. | No. 1023, 60 Steps, 15 in. diameter, Front of Board \$26.00. Back of Board \$35.00. |
| Encensoir. Enclitic. Enclosure. Enclumeau. Encomium. | Entretien. Entrevue. Enumerate. Enunciate. Enveigle. | .5 3.5 5. 6. 7. | 1600. 110. 75.5 54.8 49.4 | 480. 72. 50. 40. 36. | No. 1024, 81 Steps, 16 in. diameter, Front of Board \$43.00. Back of Board \$54.00. |

ELECTRIC LIGHT AND POWER SUPPLIES.**"UNIVERSAL" ENAMEL FIELD RHEOSTATS.****For 250 Volts—DOUBLE PLATES.**

| For Front of Switch Board, use the Trade Word in this column. | For Back of Switch-Board, use the Trade Word in this column. | Maximum Amperes with One Section of Resistance in Circuit. | Maximum Ohms in Rheostat. | Minimum Ohms in Field, on 550 Volts, required to keep Amperes within limit stated in column 1. | State in your order maximum voltage at dynamo, resistance of shunt field circuit (cold), also maximum amperes required in shunt field circuit. |
|---|--|--|---------------------------|--|--|
| Tabernacle. Tableture. | Tabulated. Tabulation. | 6. 8. | 73. 29.5 | 41. 30.5 | No. 1026. 45 Steps. 12 in diameter. Front of Board \$57.00. Back of Board \$46.00. |
| Tablecloth. Tablet. Tabor. | Tacitly. Taciturn. Tacker. | 6. 8. 10. | 119. 49.2 24. | 41. 30.5 24.5 | No. 1027. 60 Steps. 15 in diameter. Front of Board \$46.00. Back of Board \$55.00. |
| Tabouret. Tabs. Tabular. | Tactical. Tactician. Tactility. | 10. 12. 14. | 37.3 27.8 25.7 | 25. 20. 18. | No. 1028. 81 Steps. 16 in. diameter. Front of Board \$56.00 Back of Board \$65.00. |

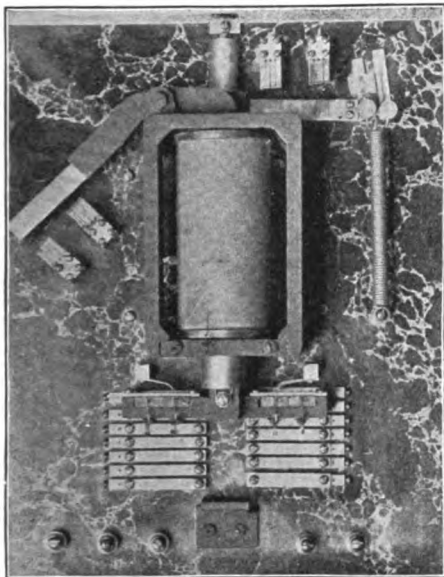
For 500 Volts.—SINGLE PLATES.

| | | | | | |
|---|---|---------------------------------|--------------------------------------|--------------------------------------|---|
| Envelop. Envenom. Envious. | Epileptic. Epilogism. Epilogue. | 1. 1.25 1.5 | 595. 450. 370. | 540. 432. 336. | No. 1052. 45 Steps. 12 in. diameter. Front of Board. \$21.00. Back of Board. \$30.00. |
| Environ. Envisager. Envoy. Envying. Epagon. | Epinicion. Epiploce. Episcopal. Episode. Epistle. | 1. 1.5 1.75 2. 2.25 | 600. 528. 400. 315. 229. | 540. 366. 310. 271. 241. | No. 1053. 60 Steps. 15 in. diameter. Front of Board \$27.00. Back of Board \$36.00. |
| Epancher. Epaulet. Epecidian. | Epistolary. Epitaph. Epitasis. | 2. 3. 3.5 | 353. 240. 182. | 272. 192. 155. | No. 1054. 81 Steps. 16 in. diameter. Front of Board \$35.00. Back of Board \$44.00. |

DOUBLE PLATES.

| | | | | | |
|--|---|-------------------------------|--------------------------------------|--------------------------------------|---|
| Epenthesis. Epergne. Eperon. Ephemeris. Epidermis. | Epithet. Epitomist. Epoch. Eponvante. Equability. | 2.5 3. 3.5 4. 4.5 | 287. 264. 200. 158. 115. | 216. 192. 155. 136. 121. | No. 1027. 60 Steps. 15 in diameter. Front of Board \$38.00. Back of Board \$47.00. |
| Epidictic. Epigastric. Epiglottic. Epigynous. | Equipage. Equipment. Equipose. Erafure. | 4. 5. 6. 7. | 205. 131. 102. 82. | 136. 110. 91. 78.5 | No. 1008. 81 Steps. 16 in. diameter. Front of Board \$57.00. Back of Board \$66.00. |

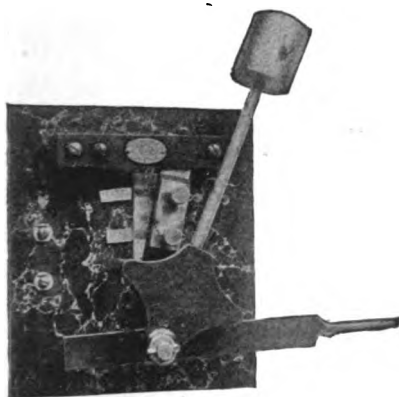
ELECTRIC LIGHT AND POWER SUPPLIES.

SELF-STARTING BOXES
FOR PUMPS.

Automatically opens the circuit on failure of the current supply. Reversible carbon brushes and segments, non-sparking and fireproof. Is adapted for use in the operation of elevator motors, electric crane motors and all cases where it is desirable to start a motor at a distance.

| H. P. | Trade Word. | 120 Volts. | Trade Word. | 240 Volts | Trade Word. | 500 Volts. |
|--------|-----------------|------------|------------------|-----------|-----------------|------------|
| 1 to 3 | Erective | \$35.00 | Erysipelas | \$35.00 | Escopette | \$40.00 |
| 5 | Ergot | 45.00 | Escabeau | 40.00 | Esculent | 45.00 |
| 7½ | Erotical | 45.00 | Escamote | 45.00 | Esoterics | 50.00 |
| 10 | Erroneous | 50.00 | Escargot | 45.00 | Espadon | 50.00 |
| 15 | Eructate | 90.00 | Eschalot | 55.00 | Espalier | 60.00 |
| 20 | Erudition | 100.00 | Eschewer | 75.00 | Esperance | 75.00 |
| 25 | Eruginous | 125.00 | Escobar | 100.00 | Espionage | 100.00 |

FLOAT AND PRESSURE SWITCH.



Float switch.

For operation from float in tank, used in connection with self-starting boxes for pumps.

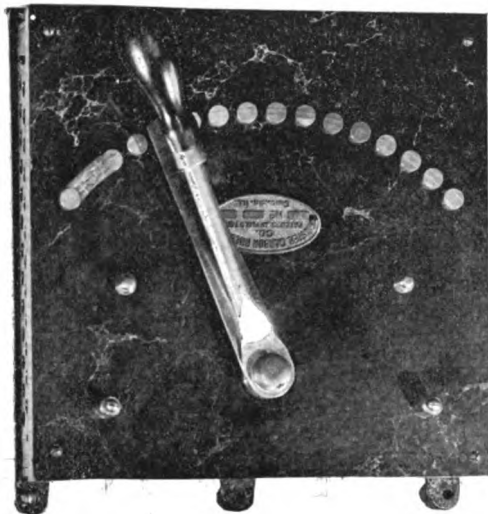
Quick make and break.

The pressure switch is for use in connection with compression tanks and can be adjusted to work on a variation of 5 pounds pressure.

| Trade Word. | Price. |
|-------------------------------|---------|
| Esplanade. Float switch | \$ 6.00 |
| Essanger. Pressure " | 25.00 |

ELECTRIC LIGHT AND POWER SUPPLIES.

CARBON THEATER DIMMERS.



The resistance in these instruments is composed of carbon, which is specially prepared and so designed that the resistance is constant at all times.

These dimmers will carry rated current for an indefinite period without heating unduly and are provided with a sufficient number of steps to secure a gradual dimming of the candle power.

Are absolutely non-inductive and free from noise on alternating current circuit.

| Trade Word. | List No. | No. of 16 C. P. Lamps Dimmed on 100-125 V. Circuit. | List Price. |
|-------------|----------|---|-------------|
| Essartage. | LD 410 | 10 | \$ 25.00 |
| Essayist. | LD 412 | 15 | 35.00 |
| Essentiate. | LD 415 | 20 | 35.00 |
| Estafette. | LD 417 | 25 | 40.00 |
| Estrapade. | LD 419 | 30 | 45.00 |
| Estrella. | LD 423 | 40 | 55.00 |
| Estuary. | LD 428 | 50 | 60.00 |
| Esurient. | LD 433 | 75 | 75.00 |
| Ethereal. | LD 438 | 100 | 85.00 |
| Ethical. | LD 443 | 125 | 85.00 |
| Ethiopian. | LD 448 | 150 | 90.00 |
| Ethnolgy. | LD 453 | 175 | 110.00 |
| Etoile. | LD 458 | 200 | 110.00 |
| Etudiant. | LD 468 | 250 | 130.00 |
| Etymology. | LD 478 | 300 | 165.00 |
| Eucharist. | LD 488 | 350 | 200.00 |
| Euclid. | LD 508 | 400 | 225.00 |
| Eulogestic. | LD 528 | 500 | 250.00 |

ELECTRIC LIGHT AND POWER SUPPLIES.

IRON CLAD THEATER DIMMERS.

Special Dimmers.

For limited space. Can be mounted in a vertical or horizontal position.

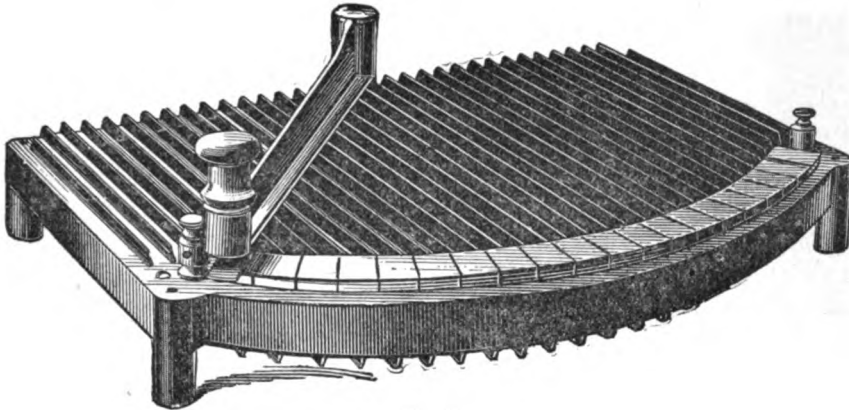


Fig. 12.

| Trade Word. | Catalogue No. | Capacity 16 C. P. Lamps. | Style. | No. of Steps. | Depth, in. | Price. |
|----------------------|---------------|-----------------------------|---------|---------------|------------|---------|
| Eulogium | 313 | 40 | Fig. 12 | 20 | 3 | \$33.00 |
| Eulogized | 315 | 50 | " 12 | 20 | 3 | 35.00 |
| Euphonic | 317 | 60 | " 12 | 20 | 3 | 37.00 |
| Euphorbia | 319 | 70 | " 12 | 20 | 3 | 39.00 |
| Evagation | 321 | 80 | " 12 | 20 | 3 | 41.00 |
| Evanescent | 323 | 90 | " 12 | 20 | 3 | 43.00 |
| Evansong | 325 | 100 | " 12 | 20 | 5 | 48.00 |
| Eventide | 327 | 125 | " 12 | 20 | 5 | 50.00 |
| Evildoer | 329 | 150 | " 12 | 20 | 8 | 54.00 |
| Evincible | 333 | 200 | " 12 | 20 | 8 | 67.00 |
| Eviscerate | 337 | 250 | " 12 | 20 | 11 | 76.00 |



Fig. 22.

| Trade Word. | Catalogue No. | Capacity 16 C. P. Lamps. | Style. | No. of Steps. | Depth, in. | List Price. | Trade Word. | Catalogue No. | Capacity 16 C. P. Lamps. | Style. | No. of Steps. | Depth, in. | List Price. |
|---------------|---------------|-----------------------------|---------|---------------|------------|-------------|--------------|---------------|-----------------------------|---------|---------------|------------|-------------|
| Evolution . | 351 | 8 | Fig. 22 | 20 | 2½ | \$15.00 | Execrable . | 359 | 50 | Fig. 22 | 50 | 3 | \$37.00 |
| Ewex | 352 | 10 | " 22 | 20 | 2½ | 17.00 | Exemplar . | 360 | 60 | " 22 | 50 | 3 | 39.00 |
| Exaltive . . | 353 | 12 | " 22 | 20 | 2½ | 19.00 | Exemption | 361 | 70 | " 22 | 50 | 3 | 41.00 |
| Excalceat . | 354 | 15 | " 22 | 24 | 2½ | 21.00 | Exiccate . . | 362 | 80 | " 22 | 50 | 3 | 43.00 |
| Excarnate . | 355 | 20 | " 22 | 24 | 2½ | 23.00 | Exigency . . | 363 | 90 | " 22 | 50 | 3 | 45.00 |
| Excelsior . . | 356 | 25 | " 22 | 24 | 2½ | 25.00 | Exorbitant . | 364 | 100 | " 22 | 50 | 5 | 50.00 |
| Excisable . . | 357 | 30 | " 22 | 50 | 3 | 33.00 | Expede . . . | 365 | 125 | " 22 | 50 | 5 | 52.00 |
| Excusatory | 358 | 40 | " 22 | 50 | 3 | 35.00 | Expeditely | 366 | 150 | " 22 | 50 | 5 | 56.00 |

Above prices for any voltage from 50 to 220. Give catalogue number, voltage and candle power of lamps.

ELECTRIC LIGHT AND POWER SUPPLIES.

IMPROVED IRON-CLAD THEATER DIMMERS.

Fig. 33—33 s e p s.

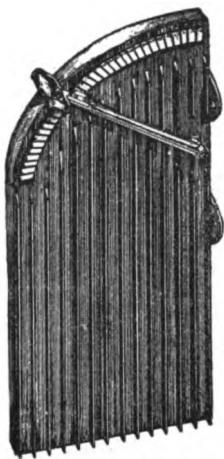
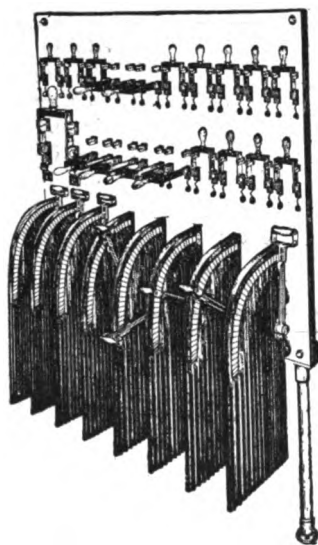


Fig 33.



Completed theatrical switchboard.
Showing method of mounting
Fig. 33 dimmers.

THREE-WIRE DIMMERS.

The dimmers in these lists are all for two-wire system. For prices on three-wire dimmers, add 50 per cent. to prices on two-wire dimmers.

| Trade Word. | Catalogue No. | Capacity 16 C. P. Lamps. | Dimensions in Inches, exclusive of handle. | | | List Price. |
|-----------------|---------------|--------------------------------|---|--------|---------|-------------|
| | | | Depth. | Width. | Height. | |
| Expedience..... | 901 | 25 | 13 | 2 | 21½ | \$ 38.00 |
| Expedition..... | 902 | 30 | 13 | 2 | 21½ | 38.00 |
| Expeditive..... | 903 | 35 | 13 | 2 | 21½ | 40.00 |
| Expel..... | 904 | 40 | 13 | 2 | 21½ | 40.00 |
| Expellent..... | 905 | 50 | 13 | 2 | 21½ | 43.00 |
| Expenditor..... | 906 | 60 | 13 | 2 | 21½ | 43.00 |
| Experience..... | 907 | 75 | 13 | 2 | 29½ | 50.00 |
| Experiment..... | 908 | 100 | 13 | 5½ | 21½ | 60.00 |
| Expert..... | 909 | 125 | 13 | 5½ | 21½ | 64.00 |
| Expertness..... | 910 | 150 | 13 | 5½ | 29½ | 73.00 |
| Expetible..... | 911 | 175 | 13 | 5½ | 29½ | 76.00 |
| Expiated..... | 912 | 200 | 13 | 9 | 29½ | 88.00 |
| Expiation..... | 913 | 250 | 13 | 9 | 29½ | 96.00 |
| Expiatory..... | 914 | 300 | 13 | 12 | 29½ | 108.00 |
| Expirable..... | 915 | 350 | 13 | 12 | 29½ | 115.00 |
| Expirant..... | 916 | 400 | 13 | 15 | 29½ | 140.00 |
| Expiscate..... | 917 | 500 | 13 | 18 | 29½ | 170.00 |
| Explainer..... | 918 | 600 | 13 | 21 | 29½ | 200.00 |
| Expletive..... | 919 | 700 | 13 | 24 | 29½ | 235.00 |
| Explicable..... | 920 | 800 | 13 | 27 | 29½ | 270.00 |
| Explicator..... | 921 | 900 | 13 | 30 | 29½ | 310.00 |
| Explicitly..... | 922 | 1000 | 13 | 33 | 29½ | 350.00 |

SMALL DIMMERS.

For theaters, lodge rooms, clubs, halls, residences, etc.

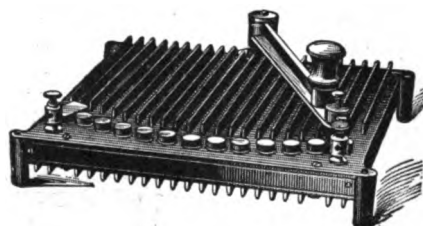


Fig. 13.

| Trade Word. | Catalogue No. | Capacity 16 C. P. Lamps. | Style. | No. of Steps. | Depth, in. | List Price. |
|-----------------|---------------|--------------------------------|---------|------------------|---------------|-------------|
| Explode..... | 298 | 1 | Fig. 13 | 6 | 1½ | \$ 7.00 |
| Exploit..... | 299 | 2 or 3 | " 13 | 6 | 1½ | 8.00 |
| Explore..... | 300 | 4 " 5 | " 13 | 6 | 1½ | 9.00 |
| Exponent..... | 301 | 6 | " 13 | 8 | 2 | 11.00 |
| Exposed..... | 302 | 8 | " 13 | 8 | 2 | 12.00 |
| Exposition..... | 303 | 10 | " 13 | 10 | 2½ | 16.00 |
| Exposure..... | 304 | 12 | " 13 | 10 | 2½ | 17.00 |
| Expounded..... | 305 | 15 | " 13 | 10 | 2½ | 19.00 |
| Expunger..... | 306 | 20 | " 13 | 12 | 2½ | 22.00 |
| Exsiccant..... | 308 | 25 | " 13 | 12 | 2½ | 24.00 |
| Extempore..... | 310 | 30 | " 13 | 12 | 2½ | 27.00 |

Above prices for any voltage from 50 to 220. Give catalogue number or trade word, voltage and candle power of lamps.

ELECTRIC LIGHT AND POWER SUPPLIES.

IRONCLAD THEATER DIMMERS.

Interlocking Dimmers.

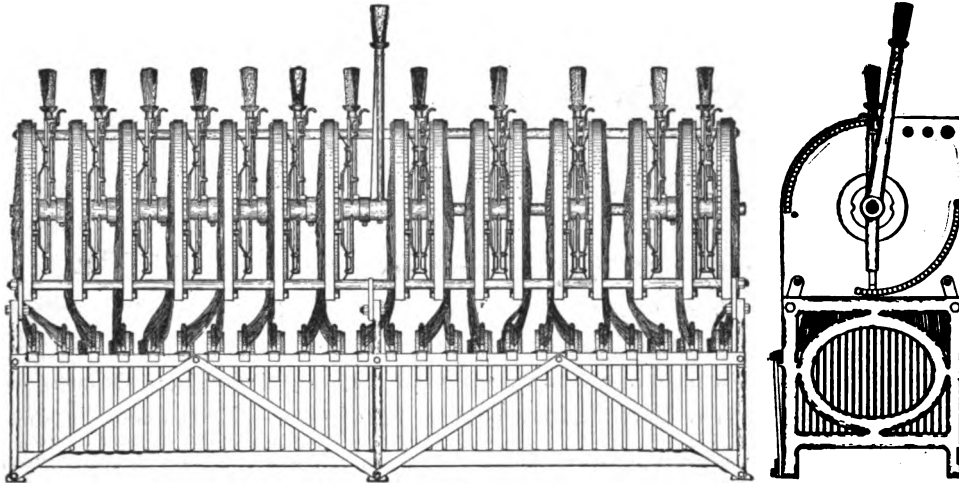


Fig. 56.
56 steps.

| Trade Word. | Catalogue No. | Capacity 16 C. P. Lamps. | Style. | Dimensions. | | | List Price. | |
|-------------------|---------------|-----------------------------|---------|-------------|------------|-------------|---------------|------------------------------|
| | | | | Depth, in. | Width, in. | Height, in. | Interlocking. | Without Interlocking Device. |
| Extending . . . | 950 | 10 to 25 | Fig. 56 | 18 | 6 | 37 | \$100.00 | \$ 70.00 |
| Extensile . . . | 951 | 12 " 30 | " 56 | 18 | 6 | 37 | 100.00 | 70.00 |
| Extensor . . . | 952 | 15 " 35 | " 56 | 18 | 6 | 37 | 105.00 | 73.00 |
| Exterminate . . . | 953 | 18 " 40 | " 56 | 18 | 6 | 37 | 110.00 | 77.00 |
| Extinct . . . | 954 | 20 " 50 | " 56 | 18 | 6 | 37 | 115.00 | 80.00 |
| Extinction . . . | 955 | 25 " 60 | " 56 | 18 | 6 | 38 | 125.00 | 90.00 |
| Extol . . . | 956 | 30 " 75 | " 56 | 18 | 6 | 37 | 135.00 | 100.00 |
| Mabble . . . | 957 | 40 " 100 | " 56 | 18 | 6 | 37 | 148.00 | 113.00 |
| Macademize . . | 958 | 50 " 125 | " 56 | 18 | 8½ | 37 | 154.00 | 119.00 |
| Maceration . . | 959 | 70 " 150 | " 56 | 18 | 8½ | 37 | 163.00 | 128.00 |
| Machefer . . . | 960 | 80 " 175 | " 56 | 18 | 11 | 37 | 170.00 | 135.00 |
| Machicot . . . | 961 | 90 " 200 | " 56 | 18 | 11 | 37 | 180.00 | 145.00 |
| Machinate . . . | 962 | 125 " 250 | " 56 | 18 | 13½ | 37 | 195.00 | 160.00 |
| Macilency . . . | 963 | 150 " 300 | " 56 | 18 | 13½ | 37 | 208.00 | 173.00 |
| Macleureite . . | 964 | 200 " 350 | " 56 | 18 | 16 | 37 | 238.00 | 203.00 |
| Maconique . . . | 965 | 250 " 400 | " 56 | 18 | 18½ | 37 | 254.00 | 219.00 |
| Macreuse . . . | 966 | 300 " 500 | " 56 | 18 | 23½ | 37 | 275.00 | 240.00 |
| Macrocasim . . | 967 | 400 " 600 | " 56 | 18 | 28½ | 37 | 310.00 | 275.00 |
| Macrology . . . | 968 | 500 " 700 | " 56 | 18 | 33½ | 37 | 350.00 | 315.00 |
| Macropus . . . | 969 | 600 " 800 | " 56 | 18 | 38½ | 37 | 400.00 | 365.00 |
| Mactation . . . | 970 | 700 " 900 | " 56 | 18 | 43½ | 37 | 460.00 | 425.00 |
| Mactatory . . . | 971 | 800 " 1000 | " 56 | 18 | 48½ | 37 | 520.00 | 485.00 |

We furnish a great variety of theater dimmers in any capacity from 1 light to 5,000 lights. Special sizes and combinations made to order. Above prices for any voltage from 50 to 220. Give catalogue number or trade word, voltage and candle power of lamps.

ELECTRIC LIGHT AND POWER SUPPLIES.

WIRING CONDUITS.

Good engineering demands that all electric conductors for telephone, telegraph, bell and electric light or power service in buildings be placed in such manner as to make their inspection possible at all times, and to that end they must be at all points accessible.

The placing of electric light and power conductors in this manner is now made a condition of acceptable installation by Underwriting Associations; where wiring is concealed this result can only be accomplished by the use of permanent raceways, into which the wiring can be drawn, withdrawn and new wire reinserted in the event of injury or conditions necessitating change of size of conductor or connections.

This raceway must, of a necessity, be continuous from outlet to outlet, and the only devices now to be procured are the various forms of conduit. To secure mechanical protection to the wiring it is required in a complete conduit system that the wall or armor of a conduit shall have a thickness equal to that of standard gas pipe; and lined and unlined iron conduits having gas pipe thickness for walls meets the approval of Underwriting Associations, as will be noted in the following extract from their rules:

25. Interior Conduits--

(See also Nos. 24 n to q, and 41.)

The object of a tube or conduit is to facilitate the insertion or extraction of the conductors to protect them from mechanical injury and, as far as possible, from moisture. Tubes or conduits are to be considered merely as raceways, and are not to be relied upon for insulation between wire and wire, or between the wire and the ground.

a. Must be continuous from one junction box to another or to fixtures, and the conduit tube must properly enter all fittings.

b. Must be first installed as a complete conduit system, without the conductors.

Insulated Metal Conduits:

b. The metal covering, or pipe, must be at least equal in thickness or of equal strength to resist penetration by nails, etc., as the ordinary commercial form of gas pipe of same size.

Uninsulated Metal Conduits:

j. Plain iron or steel pipes of equal thickness, or of equal strength, to resist penetration of nails, etc., as the ordinary commercial form of gas pipe of the same size, may be used as conduits, provided their interior surfaces are smooth and free from burs; pipe to be galvanized, or the interior surfaces coated or enameled, to prevent oxidization with some substance which will not soften so as to become sticky and prevent wire from being withdrawn from the pipe.

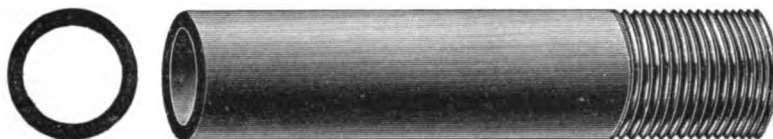
Two wires of opposite polarity are allowed in one tube having an armor of iron of standard thickness, and where the emf. does not exceed 300 volts; where an alternating current is used it is essential that the opposite polarities be in a single tube.

For telephone, telegraph or bell wiring the plain, brass armored and iron armored (both heavy and thin wall) conduits are very generally used.

The flexible conduits, such as circular loom, are used for "fished" work in finished buildings as well as for the protection of exposed conductors.

ELECTRIC LIGHT AND POWER SUPPLIES.

LORICATED ELECTRIC CONDUITS.



(UNLINED.)

Lorication is a new method of protection to iron against oxygen.

Loricated conduits consist of a tube of mild steel or iron, in lengths of ten feet, perfectly smooth, both outside and inside, having a tough adherent insulated loricated coating, that will not crack or come off in the bending of the pipe, and which resists acids and alkalis. There is nothing sticky or tacky about this coating, nor will heat or cold affect it in the slightest degree. And, besides, there is nothing to unwind, loosen, buckle, splinter or choke the raceway. Bends can be made on the job where necessary, without any risk. The lining sticks where it is placed. The interiors are as smooth as glass, allowing the wires to be fed in with facility, and without the use of soapstone.

The use of two standard wires, either separate or twin conductor, in a straight conduit installation, is approved in the iron armored unlined conduit of the Safety Conduit Company. While in the use of an unlined iron armored tube, the National Electrical Code calls for a $\frac{1}{4}$ inch extra braided covering, the small additional cost of this extra braid is more than overcome by the larger opening which is obtained in this conduit, not to speak of the great saving in labor which is obtained in its installation.

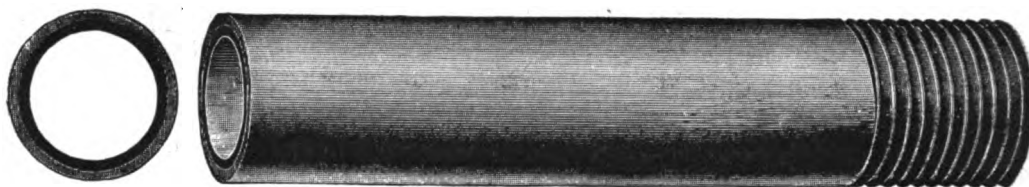
| STANDARD GAS PIPE DIMENSIONS. | | | | | | LIGHT WALL TUBING. Outside Diameter Same as Standard Gas Pipe. | | | | | |
|-------------------------------|-----------------------------|------------------------------------|---------------------------|--------------------------------------|---------------------|---|-----------------------------|------------------------------------|---------------------------|--------------------------------------|---------------------|
| Trade Word. | Standard Size Pipe. Inches. | Nominal Internal Diameter. Inches. | Outside Diameter. Inches. | Number of Threads per Inch of Screw. | Price per 100 Feet. | Trade Word. | Standard Size Pipe. Inches. | Nominal Internal Diameter. Inches. | Outside Diameter. Inches. | Number of Threads per Inch of Screw. | Price per 100 Feet. |
| Maculate | $\frac{3}{8}$ | .468 | .675 | 18 | \$ 9.25 | Magianism.. | $\frac{3}{8}$ | .515 | .675 | 18 | \$ 9.25 |
| Madbrained.. | $\frac{1}{2}$ | .609 | .840 | 14 | 11.50 | Magistry... .. | $\frac{1}{2}$ | .687 | .840 | 18 | 11.50 |
| Maddening... | $\frac{3}{4}$ | .812 | 1.05 | 14 | 15.00 | Magistracy .. | $\frac{3}{4}$ | .875 | 1.05 | 18 | 15.00 |
| Madefy | 1 | 1.031 | 1.315 | 11 $\frac{1}{2}$ | 21.00 | Magnality... | 1 | 1.093 | 1.315 | 18 | 21.00 |
| Madefying... | 1 $\frac{1}{4}$ | 1.375 | 1.66 | 11 $\frac{1}{2}$ | 27.00 | Magnesite... | 1 $\frac{1}{4}$ | 1.375 | 1.66 | 16 | 27.00 |
| Madhouse.... | 1 $\frac{1}{2}$ | 1.593 | 1.90 | 11 $\frac{1}{2}$ | 34.00 | Magnesium .. | 1 $\frac{1}{2}$ | 1.625 | 1.90 | 16 | 34.00 |
| Madrigal | 2 | 2.065 | 2.375 | 11 $\frac{1}{2}$ | 47.00 | Magnetic.... | 2 | 2.125 | 2.375 | 11 $\frac{1}{2}$ | 47.00 |
| Magabaize... | 2 $\frac{1}{2}$ | 2.468 | 2.875 | 8 | 67.00 | Magnifical .. | 2 $\frac{1}{2}$ | 2.625 | 2.875 | 8 | 67.00 |

Tubes in 10 feet lengths, with loricated coupling on one end, thread on other.

| ELBOWS. | | | COUPLINGS. | | ELBOWS. | | | COUPLINGS. | |
|----------------|-----------------|----------------|----------------|----------------|---------------|-----------------|----------------|----------------|----------------|
| Trade Word. | Size. | Price per 100. | Trade Word. | Price per 100. | Trade Word. | Size. | Price per 100. | Trade Word. | Price per 100. |
| Magnum..... | $\frac{3}{8}$ | \$16.00 | Majoration ... | \$6.00 | Malaxate ... | $\frac{3}{8}$ | \$16.00 | Malevolent... | \$6.00 |
| Maidhood.... | $\frac{1}{2}$ | 18.00 | Majordome ... | 7.00 | Maldanian .. | $\frac{1}{2}$ | 18.00 | Malfaire..... | 7.00 |
| Maigreur..... | $\frac{3}{4}$ | 23.00 | Makable... .. | 10.00 | Maldisant... | $\frac{3}{4}$ | 23.00 | Malgre | 10.00 |
| Mainly | 1 | 30.00 | Maker..... | 13.00 | Malebete. ... | 1 | 30.00 | Malheur..... | 13.00 |
| Mainnorte ... | 1 $\frac{1}{4}$ | 45.00 | Malachite..... | 17.00 | Maledicent .. | 1 $\frac{1}{4}$ | 45.00 | Maleson | 17.00 |
| Mainspring .. | 1 $\frac{1}{2}$ | 80.00 | Malacolite.... | 21.00 | Malefactor.. | 1 $\frac{1}{2}$ | 80.00 | Malleable.... | 21.00 |
| Maintainer... | 2 | 165.00 | Malarious..... | 28.00 | Mailfaim | 2 | 165.00 | Mallinders ... | 28.00 |
| Maitresse..... | 2 $\frac{1}{2}$ | 240.00 | Malavise..... | 40.00 | Malefice .. | 2 $\frac{1}{2}$ | 240.00 | Malotru | 40.00 |

ELECTRIC LIGHT AND POWER SUPPLIES.

IRON ARMORED INSULATED CONDUIT.



This form of conduit consists of an iron pipe of standard outside diameter, having an insulation of fibrous material, so placed as to adhere firmly to the inside of the tube. It is made in two forms, heavy wall having standard gas pipe thickness and thin wall, the lining being the same in each case.

| HEAVY WALL PRICE LIST. | | | | | THIN WALL PRICE LIST. | | | | |
|------------------------|-------------------|-------------------|-----------------------|-------------|-----------------------|-------------------|-------------------|-----------------------|-------------|
| Trade Word. | Inside Diameter. | Outside Diameter. | No. Threads Per Inch. | Per 100 ft. | Trade Word. | Inside Diameter. | Outside Diameter. | No. Threads Per Inch. | Per 100 ft. |
| Malpergrie | $\frac{1}{2}$ in. | .84 in. | 14 | \$10.25 | Malvaceous ... | $\frac{1}{8}$ in. | .675 in. | 18 | \$ 9.25 |
| Malseant..... | $\frac{7}{16}$ " | 1.05 " | 14 | 13.00 | Malverse | $\frac{1}{8}$ " | .84 " | 18 | 11.50 |
| Malsonant..... | $\frac{9}{16}$ " | 1.31 " | 11 $\frac{1}{2}$ | 18.00 | Mamelon | $\frac{3}{4}$ " | 1.05 " | 18 | 15.00 |
| Malthouse | 1 $\frac{1}{4}$ " | 1.66 " | 11 $\frac{1}{2}$ | 28.00 | Mameluke.... | 1 " | 1.315 " | 18 | 21.00 |
| Malting..... | 1.4 " | 1.9 " | 11 $\frac{1}{2}$ | 36.00 | Manation..... | 1 $\frac{1}{4}$ " | 1.66 " | 16 | 27.00 |
| Maltman..... | 1.8 " | 2.375 " | 11 $\frac{1}{2}$ | 50.00 | Manchette.... | 1 $\frac{1}{2}$ " | 1.9 " | 16 | 34.00 |
| Maltreat..... | 2 $\frac{1}{4}$ " | 2.875 " | 8 | 67.00 | Mancipate.... | 2 " | 2.375 " | 11 $\frac{1}{2}$ | 47.00 |
| Malister | 2 $\frac{3}{4}$ " | 3.5 " | 8 | 84.00 | Mandible..... | 2 $\frac{1}{2}$ " | 2.875 " | 8 | 67.00 |

All sizes supplied in ten foot lengths, threaded and with one coupling for each length.

| ELBOWS. LONG SWEEP, 90°. | | | COUPLINGS. | | ELBOWS. LONG SWEEP, 90°. | | | COUPLINGS. | |
|-----------------------------|-------------------|----------------|-------------|----------------|-----------------------------|-------------------|----------------|-------------|----------------|
| Trade Word. | Size. | Price Per 100. | Trade Word. | Price Per 100. | Trade Word. | Size. | Price Per 100. | Trade Word. | Price Per 100. |
| Mandilion.. | $\frac{1}{2}$ in. | \$18.00 | Manikin ... | \$ 7.00 | Mantelet... | $\frac{1}{8}$ in. | \$16.00 | Maraschino | \$ 6.00 |
| Mandingo.. | $\frac{7}{16}$ " | 23.00 | Maniple ... | 10.00 | Mantilla... | $\frac{1}{8}$ " | 18.00 | Marasmus.. | 7.00 |
| Mandolin .. | $\frac{9}{16}$ " | 30.00 | Manique ... | 13.00 | Mantology. | $\frac{3}{4}$ " | 23.00 | Marauder.. | 10.00 |
| Manducable | 1 $\frac{1}{4}$ " | 35.00 | Manorial .. | 17.00 | Manubial.. | 1 " | 30.00 | Marbler ... | 13.00 |
| Manginess.. | 1.4 " | 60.00 | Manascope. | 21.00 | Manumit .. | 1 $\frac{1}{4}$ " | 35.00 | Marcalina.. | 17.00 |
| Mangonism | 1.8 " | 165.00 | Mansard... | 28.00 | Manurage.. | 1 $\frac{1}{2}$ " | 60.00 | Marcasite.. | 21.00 |
| Maniacally. | 2 $\frac{1}{4}$ " | 240.00 | Manse | 40.00 | Maquerean. | 2 " | 165.00 | Marcation.. | 28.00 |
| Manifold .. | 2 $\frac{3}{4}$ " | 350.00 | Manservant | 60.00 | Maraboat.. | 2 $\frac{1}{2}$ " | 240.00 | Marchand.. | 40.00 |

ELECTRIC LIGHT AND POWER SUPPLIES.

BRASS ARMORED CONDUIT.



Consisting of the plain conduit having a sheathing or armor of brass.

PRICE LIST.

| Trade Word. | Inside Diameter. | Outside Diameter. | Price Per 100 feet. |
|-------------|---------------------|-------------------|---------------------|
| Gameless. | $\frac{5}{16}$ inch | .495 | \$ 4.25 |
| Gamesome | $\frac{3}{8}$ " | .625 | 5.00 |
| Gamester | $\frac{1}{2}$ " | .730 | 6.00 |
| Gaming | $\frac{5}{8}$ " | .792 | 6.75 |
| Gammon | $\frac{3}{4}$ " | 1.000 | 9.00 |
| Gamut | 1 " | 1.23 | 12.00 |
| Gander | $1\frac{1}{4}$ " | 1.54 | 14.75 |

All sizes furnished in ten foot lengths.

BRASS ARMORED ELBOWS.

No. 114.

Long Sweep, 90°.

BRASS ARMORED COUPLINGS.

No. 103.

Insulated.

| Trade Word. | Inside Diameter. | Price Per 100. | Trade Word. | Inside Diameter. | Price Per 100. |
|-------------|---------------------|----------------|-------------|---------------------|----------------|
| Gaily. | $\frac{5}{16}$ inch | \$ 6.00 | Glacier. | $\frac{5}{16}$ inch | \$ 3.60 |
| Gainable. | $\frac{3}{8}$ " | 7.20 | Gladden. | $\frac{3}{8}$ " | 3.90 |
| Gainful. | $\frac{1}{2}$ " | 9.00 | Gladdening. | $\frac{1}{2}$ " | 4.30 |
| Gainfully. | $\frac{5}{8}$ " | 10.60 | Glade. | $\frac{5}{8}$ " | 4.75 |
| Gainless. | $\frac{3}{4}$ " | 14.10 | Gladiator. | $\frac{3}{4}$ " | 7.50 |
| Gainsay. | 1 " | 23.50 | Gladly. | 1 " | 8.60 |
| Gait. | $1\frac{1}{4}$ " | 35.00 | Gladness. | $1\frac{1}{4}$ " | 12.50 |

ELECTRIC LIGHT AND POWER SUPPLIES.

PLAIN INTERIOR CONDUIT.

| Trade Word. | Inside Diameter. | Price per 100 feet. |
|-------------|--------------------|---------------------|
| Gab. | $\frac{1}{4}$ inch | \$2.25 |
| Gabber. | $\frac{3}{8}$ " | 2.25 |
| Gabbling. | $\frac{1}{2}$ " | 2.75 |
| Gad. | $\frac{3}{8}$ " | 3.75 |
| Gadder. | $\frac{1}{2}$ " | 4.25 |
| Gadfly. | 1 " | 5.25 |
| Gaff. | $1\frac{1}{4}$ " | 8.00 |

$\frac{1}{4}$ inch furnished in six foot lengths; all other sizes in ten foot lengths.

PLAIN ELBOWS.

Long sweep, 90°, No. 110.

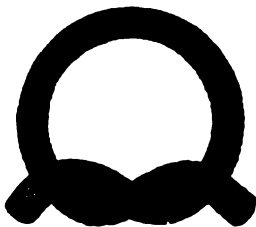
| Trade Word. | Inside Diameter. | Price per 100. |
|-------------|--------------------|----------------|
| Gaunt. | $\frac{1}{4}$ inch | \$ 5.50 |
| Gauntlet. | $\frac{3}{8}$ " | 5.50 |
| Gauze. | $\frac{1}{2}$ " | 5.60 |
| Gay. | $\frac{3}{8}$ " | 7.50 |
| Gayly. | $\frac{1}{2}$ " | 10.00 |
| Gaze. | 1 " | 13.00 |
| Gazeul. | $1\frac{1}{4}$ " | 25.00 |

COUPLINGS.

Seamless brass, No. 102.

| Trade Word. | Inside Diameter. | Price per 100. |
|-------------|---------------------|----------------|
| Giddy. | $\frac{1}{4}$ inch. | \$ 2.50 |
| Gift. | $\frac{3}{8}$ " | 2.50 |
| Gifted. | $\frac{1}{2}$ " | 2.75 |
| Gig. | $\frac{3}{8}$ " | 4.00 |
| Gigantic. | $\frac{1}{2}$ " | 5.00 |
| Giggle. | 1 " | 6.25 |
| Gild. | $1\frac{1}{4}$ " | 13.50 |

FLEXIBLE CONDUIT.



Circular loom.

This conduit is adapted for use under many conditions where rigid conduit is not suitable. It is recommended for use when wires are "fished" or under all other conditions where impossible to support on proper insulators; is also used in the protection of exposed wiring.

| Trade Word. | Inside Diameter. | Feet in Coll. | Weight per 1000 feet. | Cubic Feet per Coll. | Price. per foot. |
|-----------------|-------------------|---------------|-----------------------|----------------------|------------------|
| Marcidity..... | $\frac{1}{4}$ in. | 250 | 75 lbs. | 1.18 | \$0.06 |
| Marcotte..... | $\frac{3}{8}$ " | 250 | 110 " | 1.39 | .07 |
| Mardella..... | $\frac{1}{2}$ " | 200 | 125 " | 1.58 | .08 |
| Margaric..... | $\frac{3}{8}$ " | 200 | 155 " | 2.28 | .10 |
| Margarous..... | $\frac{1}{2}$ " | 150 | 200 " | 2.38 | .12 |
| Margay..... | 1 " | 100 | 275 " | 2.48 | .16 |
| Marinated..... | $1\frac{1}{4}$ " | 100 | 360 " | 3.74 | .20 |
| Marionette..... | $1\frac{1}{2}$ " | odd lengths | 400 " | | .34 |
| Maritated..... | $1\frac{3}{4}$ " | " | 440 " | | .40 |

ELECTRIC LIGHT AND POWER SUPPLIES.

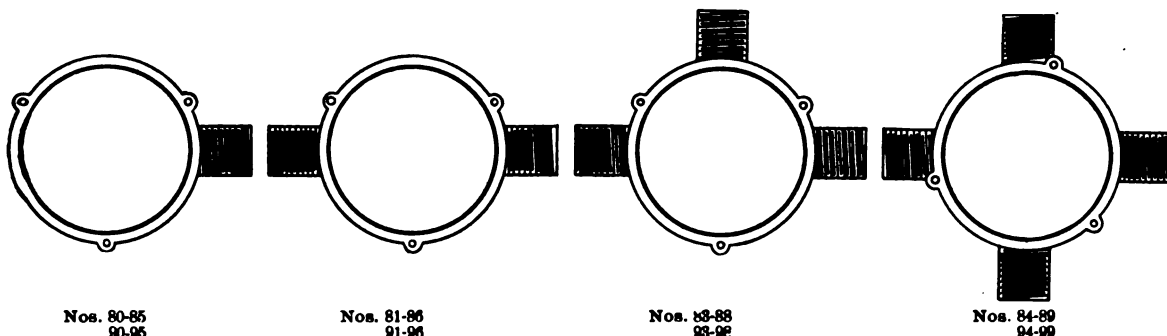


BRANCH AND OUTLET BOXES.

These boxes are constructed of iron and are lined with asphaltic paper or loricated as may be desired. Are used as junction or branch circuit boxes, also for switches, sockets or similar appliances at outlets. All covers are interchangeable.

Can be furnished having an inside diameter of $2\frac{1}{4}$ or $3\frac{1}{4}$ inches when lined or about $2\frac{3}{8}$ and $3\frac{3}{8}$ inches if loricated. Depth in each case, $1\frac{1}{2}$ inches.

Can be furnished with nipple outlets as shown in diagrams below or with outlets tapped only (no nipples), same location as below. Outlets can be tapped for all sizes and types of iron conduit up to and including $\frac{1}{2}$ inch.



| Trade Word. | No. | | | | | Price. |
|-------------|-----|----------------------|------------------------------------|-------|-----------|--------|
| Marjolet. | 80. | 1 outlet, | $2\frac{1}{4}$ in. diameter, lined | ..... | each, | \$0.68 |
| Marjorum. | 81. | 2 outlets, opposite, | " | " | " | .80 |
| Marker. | 82. | 2 " right angles, | " | " | " | .80 |
| Marketing. | 83. | 3 " | " | " | " | .86 |
| Marlitic. | 84. | 4 " | " | " | " | 1.04 |
| Marmolite. | 85. | 1 outlet, | $3\frac{1}{4}$ | " | " | .72 |
| Marotique. | 86. | 2 outlets, opposite, | " | " | " | .84 |
| Marquetry. | 87. | 2 " right angles, | " | " | " | .84 |
| Marquisate. | 88. | 3 " | " | " | " | 1.00 |
| Marrer. | 89. | 4 " | " | " | " | 1.20 |
| Marroner. | 90. | 1 outlet, | $2\frac{3}{8}$ | " | loricated | .68 |
| Marscand. | 91. | 2 outlets, opposite, | " | " | " | .80 |
| Marshland. | 92. | 2 " right angles, | " | " | " | .80 |
| Martagon. | 93. | 3 " | " | " | " | .86 |
| Martelage. | 94. | 4 " | " | " | " | 1.04 |
| Martello. | 95. | 1 outlet, | $3\frac{3}{8}$ | " | " | .72 |
| Martial. | 96. | 2 outlets, opposite, | " | " | " | .84 |
| Martinet. | 97. | 2 " right angles, | " | " | " | .84 |
| Martingal. | 98. | 3 " | " | " | " | 1.00 |
| Mascarona. | 99. | 4 " | " | " | " | 1.20 |

ELECTRIC LIGHT AND POWER SUPPLIES.

BRANCH AND OUTLET BOX COVERS.



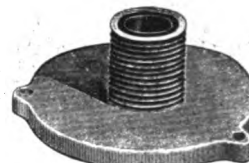
Nos. 533-534.



Nos. 530-531.



Nos. 521-522.



Nos. 527-528.

These covers are designed to be used in connection with the iron boxes noted on preceding page, and are interchangeable, made in the styles noted above, and for the $2\frac{1}{4}$ and $3\frac{1}{4}$ inch boxes.

| Trade Word. | Number. | | Price. |
|-------------|---------|--|--------------|
| Masoretic. | 521. | Plain, for $2\frac{1}{4}$ or $2\frac{3}{4}$ inch boxes | each, \$0.12 |
| Masseter. | 522. | " $3\frac{1}{4}$ " $3\frac{3}{4}$ " | " .16 |
| Mastery. | 527. | With nipple, for $2\frac{1}{4}$ or $2\frac{3}{4}$ inch boxes | " .40 |
| Masticable. | 528. | " " " $3\frac{1}{4}$ " $3\frac{3}{4}$ " | " .44 |
| Mastology. | 530. | " bushing " $2\frac{1}{4}$ " $2\frac{3}{4}$ " | " .24 |
| Matchable. | 531. | " " " $3\frac{1}{4}$ " $3\frac{3}{4}$ " | " .30 |
| Matchless. | 533. | " hole for socket, for $2\frac{1}{4}$ or $2\frac{3}{4}$ inch boxes | " .16 |
| Mathesis. | 534. | " " " " $3\frac{1}{4}$ " $3\frac{3}{4}$ " | " .18 |



No. 1.



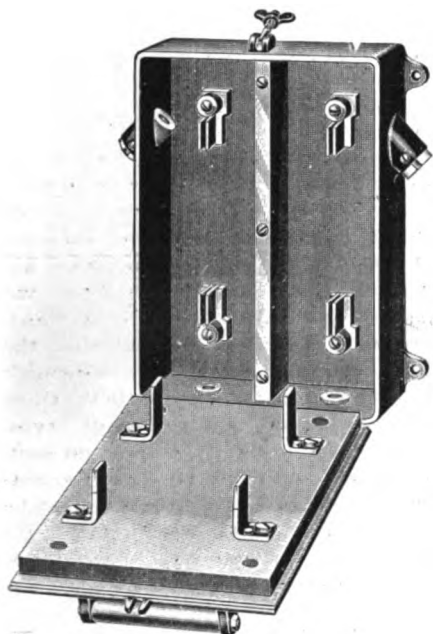
No. 6.

CHASE "KNOCKOUT" OUTLET BOXES.

These boxes are of cast iron and enamel lined; are cast solid with a thin web at the various outlets. These webs can be readily "knocked out" at such points as may be desired for the entrance of conduit, leaving a hole of proper size. The conduit is brought to the box and coupling placed on conduit, the nipple (No. 6) is then screwed into the coupling from inside of the box, thereby holding the conduit firmly to the box. The nipple also serves as an insulating outlet for the conduit, and prevents chafing or injuring the wiring. These nipples are also useful for terminal conduit insulators where boxes are not used.

| Trade Word. | | Price. |
|-------------|---------------------------------|---------------|
| Martineaux. | Outlet box | each, \$0.40 |
| Matricide. | Nipple $\frac{3}{8}$ inch | per 100, 7.20 |
| Matronage. | " $\frac{7}{16}$ " | " 7.20 |
| Mattress. | " $\frac{1}{2}$ " | " 9.60 |
| Maturate. | " $\frac{5}{8}$ " | " 9.60 |
| Maturing. | " $\frac{3}{4}$ " | " 12.00 |

ELECTRIC LIGHT AND POWER SUPPLIES.

HIGH TENSION SERVICE
SWITCH AND FUSE BOX COMBINED.

Double Pole

A weather-proof iron box made water-proof by means of a rubber gasket. Outside dimensions $8\frac{1}{2}$ inches wide, $12\frac{1}{4}$ inches high and $4\frac{1}{4}$ inches deep. Polarities separated by slate partition.

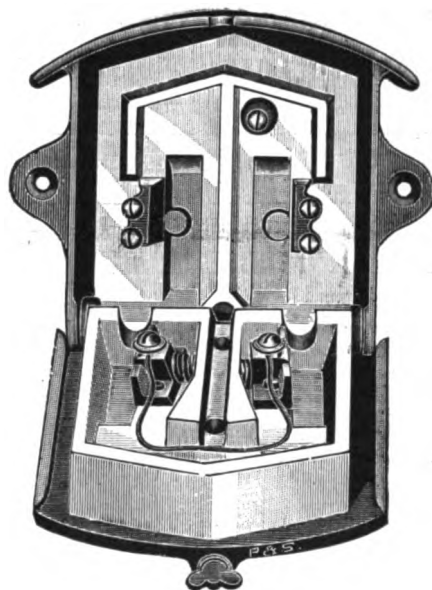
| Trade Word. | No. | Price. |
|-------------|------------------------------|--------------|
| Tabbinet. | 1021. 100 amp. 500 volt..... | each, \$5.75 |

JUNCTION BOX.

Single Pole.

Contacts are carried on two heavy porcelain blocks and have projections which shut into corresponding recesses preventing short circuiting; the opening of the cover opens the circuit enabling the safe removal of the fuse. A rubbing contact is made insuring good connection, and the metal parts are of ample capacity. Fuses 3 or 5 inches long can be used. All contained in a weather-proof iron case.

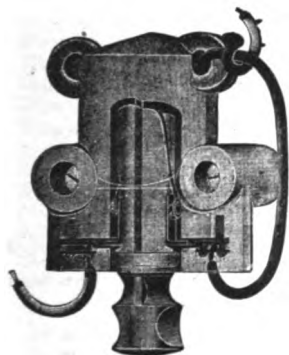
| Trade Word. | No. | Price. |
|-------------|------------------------|--------------|
| Presignify. | 138. Box complete..... | each, \$1.50 |



ALL CHINA JUNCTION BOX AND CUT-OUT.

Single Pole.

The fuse chamber is entirely surrounded by porcelain and is completely divided by means of projections on the plug; the plug takes a 5 inch fuse and is held in the receptacle by knife contact and cannot drop out. The connections take wire up to No. 4 B and S; fastens up by lag screws or wood screws, is thoroughly water-proof and can be used under all climatic conditions. Furnished in black or white.



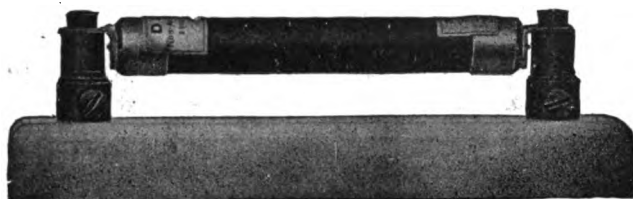
| Trade Word. | No. | Price. |
|-------------|--------------------------------|--------------|
| Matutinal. | 139. White..... | each, \$1.00 |
| Maunday. | 139 $\frac{1}{4}$. Black..... | " .85 |

ELECTRIC LIGHT AND POWER SUPPLIES.

THE D. & W. NON-ARCING FUSES AND SAFETY DEVICES.



D. & W. non-arcing fuse.



D. & W. non-arcing fuse and cut-out.

The principle embodied in this fuse is the placing of an accurately graded fuse wire in such manner as not to be affected by drafts of air or contact with heavy metal or insulating supports which tend to dissipate the rise in temperature approaching the fusing point; to accomplish this the fuse is surrounded by an insulating tube in which is placed a preparation tending to neutralize the effects of the disruptive arc at time of "blowing"; proper terminals are provided as shown in the illustration; the current capacity and voltage of service for which it is intended is plainly marked on each fuse case and cut-out, and the terminals are so constructed that fuses of any given capacity cannot be inserted except in terminals for which they were originally designed. Accidents due to ignorance or carelessness are absolutely avoided.

| Fuses for 500 Volt Service. For use on circuits from 250 to 500 volts. | | | | | Fuses for 220 Volt Service. For use on all circuits up to and including 220 volts. | | | |
|---|------------------|-------------------------|-----------------|----------------|---|------------------|-------------------------|----------------|
| Trade Word. | Load in Amperes. | Base Fuse will only fit | H. P. of Motor. | Price per 100. | Trade Word. | Load in Amperes. | Base Fuse will only fit | Price per 100. |
| Maundering... | 2 | 10 Amp. | 1 | \$14.00 | Mediant | 4 Amp. | 6 Amp. | \$12.50 |
| Mausoleum... | 4 | " | 2 | 14.00 | Mediation..... | 5 " | 6 " | 12.50 |
| Mauvais | 6 | " | 3 | 14.00 | Medicament.... | 6 " | 6 " | 12.50 |
| Mawkish..... | 8 | " | 4 | 14.00 | Mediety..... | 8 " | 15 " | 14.00 |
| Maxillary..... | 10 | " | 5 | 14.00 | Mediocre..... | 10 " | 15 " | 14.00 |
| Mayoress..... | 12 | 25 Amp. | | 18.00 | Mediocrity..... | 12 " | 15 " | 14.00 |
| Maypole..... | 14 | " | 7½ | 18.00 | Medler | 15 " | 15 " | 14.00 |
| Maze..... | 16 | " | | 18.00 | Medullary..... | 18 " | 30 " | 16.00 |
| Maziness..... | 18 | " | 10 | 18.00 | Medulline..... | 20 " | 30 " | 16.00 |
| Mazurka..... | 20 | " | 12 | 18.00 | Melancholy.... | 25 " | 30 " | 16.00 |
| Meadway..... | 25 | " | 15 | 18.00 | Meliorated.... | 30 " | 30 " | 16.00 |
| Mealman..... | 30 | 50 Amp. | | 20.00 | Melanger..... | 35 " | 60 " | 18.00 |
| Mealtub..... | 35 | " | 20 | 20.00 | Melient..... | 40 " | 60 " | 18.00 |
| Meandering... | 40 | " | | 20.00 | Mellific..... | 45 " | 60 " | 18.00 |
| Measurably... | 45 | " | 25 | 20.00 | Mellowness.... | 50 " | 60 " | 18.00 |
| Mechanical.... | 50 | " | 30 | 20.00 | Melodious..... | 60 " | 60 " | 18.00 |
| Meconic..... | 60 | 100 Amp. | | 25.00 | Melodist..... | 70 " | 120 " | 20.00 |
| Meddlesome... | 75 | " | 40 | 25.00 | Melophone..... | 80 " | 120 " | 20.00 |
| Mediæval..... | 100 | " | 50 | 25.00 | Membership.... | 90 " | 120 " | 20.00 |
| ..... |  |  |  |  | Memorate..... | 100 " | 120 " | 20.00 |
| ..... |  |  |  |  | Menagerie..... | 110 " | 120 " | 20.00 |
| ..... |  |  |  |  | Mendable..... | 120 " | 120 " | 20.00 |

| Single Pole 500 Volt Porcelain Cut-outs. | | | | 220 Volt Porcelain Main Line Cut-outs. | | | | |
|--|-----------|--------------|-------------|--|-----------|-------------------|----------------|-------------------|
| Trade Word. | Capacity. | Range. | Price Each. | Trade Word. | Capacity. | 2-Wire Price Each | Trade Word. | 3-Wire Price Each |
| Mendacity | 10 Amp. | 2 to 10 Amp. | \$0.70 | Mensonage... | 6 Amp. | \$0.58 | Meritable | \$0.84 |
| Mendicancy... | 25 " | 12 " 25 " | 0.80 | Mensurate.... | 15 " | 0.68 | Meritant..... | 0.90 |
| Meniscus..... | 50 " | 30 " 50 " | 1.00 | Mephitical... | 30 " | 0.78 | Merlette..... | 1.05 |
| Menalogy | 100 " | 60 " 100 " | 1.40 | Meprisant.... | 60 " | 1.18 | Merlin | 1.75 |
| ..... | ..... | ..... | ..... | Mercurial.... | 120 " | 1.70 | Mesallier..... | 2.70 |

ELECTRIC LIGHT AND POWER SUPPLIES.



Type C.

THE D. AND W. NON-ARCING
FUSES AND SAFETY
DEVICES.

Transformer primary boxes.

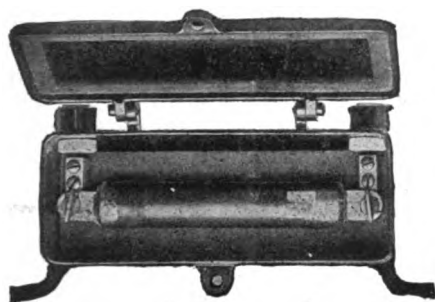
Type C.

Fuse is inserted on cover, circuit open except
when cover is closed.

Fig. 2.

For telephone or telegraph circuits showing
single pole fuse with sneak coil and light-
ning arrester.

Fig. 2.



Type R.

Street car motor cut-out

Trade Word

Mesmerism.

Messenger.

Messmate.

Messuage.

Metabola.

Metacarpe.

Metacism.

Metalepse.

Metallurgy.

Type C, transformer, cut-out box.....

" S, fuse junction switch.....

" R, street car motor cut-out.....

Telephone cut out, single pole.....

" " " combination (Fig. 2).....

Telephone cut-out, double pole combination.....

Feeder blocks, slate base, S. P., 1 to 30 amp.....

" " " " " 35 to 60 ".....

" " " " " 70 to 100 ".....

Price

Each.

\$3.00

5.00

4.00

.60

1.60

2.50

1.00

1.10

1.20

Fuses for 1000 or 2000 Volt Service.

For use on all circuits above 500 volts.

| Trade Word. | Load in Am- peres. | Transformer Capacity in 16 C. P. Lamps, 1000 Volts. | Transformer Capacity in 16 C. P. Lamps, 2000 Volts. | Price Per 100 |
|-------------------|-----------------------|---|---|---------------|
| Metaphrase..... | 1½ | 10 | 10 | \$14 00 |
| Metaphysic..... | 2 | 20 | 40 | 14.00 |
| Meterage..... | 3 | 40 | ..... | 14.00 |
| Metrifier..... | 4 | 60 | 150 | 14 00 |
| Metronome..... | 5 | ..... | ..... | 14.00 |
| Mettled..... | 6 | 100 | 200 | 14.00 |
| Meubler..... | 8 | 150 | 300 | 16 00 |
| Meurtrir..... | 10 | ..... | ..... | 16.00 |
| Miasmatic..... | 12 | 200 | ..... | 16 00 |
| Miasmaticist..... | 13 | 250 | 500 | 16 00 |
| Microdon..... | 14 | ..... | ..... | 16.00 |
| Microlite..... | 15 | 300 | ..... | 16.00 |
| Microscope..... | 16 | ..... | ..... | 18.00 |
| Midden..... | 18 | 350 | ..... | 18.00 |
| Mightiness..... | 20 | ..... | ..... | 18.00 |
| Miguard..... | 22 | 400 | ..... | 18 00 |
| Mignonette..... | 26 | 500 | ..... | 18.00 |
| Migratory..... | 30 | ..... | ..... | 18.00 |

Fuses for Telephone or Telegraph.

Will only fit telephone bases.

Sneak Coils for Combination Cut-out.

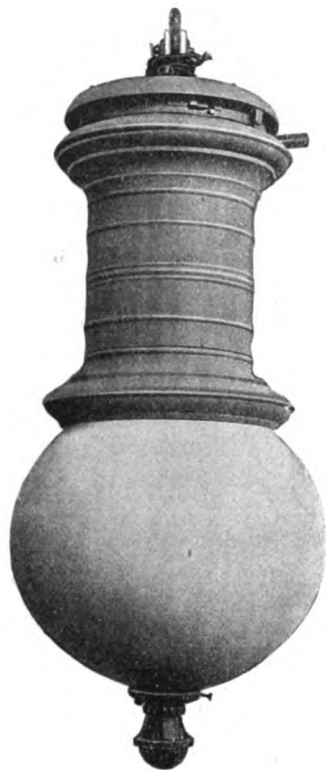
| Trade Word. | Capacity. | Price Per 100. | Trade Word. | Capacity. | Price Per 100. |
|---------------|-----------|----------------|-------------|--------------|----------------|
| Mildness..... | 1½ amp. | \$14.00 | Milestone. | 1 to 1½ amp. | \$15.00 |
| Milepost..... | 4 " " | 14.00 | | | |

We recommend a 1½ coil for telephone.

ELECTRIC LIGHT AND POWER SUPPLIES.

WESTINGHOUSE LONG BURNING ARC LAMPS.

Direct current, constant potential.



Style No. 6958.
Outdoor type.

These lamps are of the enclosed type; that is, they have an inner globe which encloses the arc in an almost air-tight chamber. Free circulation of air around the arc is prevented, and consequently the carbons burn more slowly and their life is increased from about 10 hours to 100 hours or more. The cost of carbons and attendance is therefore greatly reduced. It is impossible for carbon dust to escape from the lamp while in use, and hence the danger from fire due to hot particles of carbon falling is entirely eliminated. The lamp does not flicker, flame or hiss, and it gives a steady and evenly diffused light. The mechanism is exceedingly simple, the lamps having no carbon rods, chains or gear wheels.

The mechanism consists of a double magnet, connected directly to a simple clutch, which grips the upper carbon. The outer globe is held in place by a very simple automatic locking device. Trimming is greatly facilitated by the convenient way in which the inner globe is arranged. The movement is well ventilated and protected from the heat of the arc. These lamps are built for both indoor and outdoor use. For outdoor use a plain housing is furnished and they may be hung without a protecting hood. For indoor work ornamental housings are employed. A cut-out switch is provided in the upper part of each lamp.

The carbons are so proportioned that the stub remaining in the upper holder may be used in the lower holder for the next trim; consequently it is only necessary to use one 12-inch carbon each time the lamp is trimmed.

These lamps operate singly across circuits of 110 volts, and will with one trimming, burn from 100 to 150 hours; they are furnished to operate at either 3 or 4.5 amperes. The list price includes one inner and one outer globe with net; when ordering specify kind of globe desired.

| Trade Word. | Style No. | Description. | Current. | Price. |
|----------------------|-----------|---------------------|-----------|---------|
| Tongwerk | 6957 | Outdoor, plain. | 3 Amperes | \$42.00 |
| Tongworm | 6958 | " " | 4.5 " | 42.00 |
| Tonteaseis | 6959 | Indoor, ornamental. | 3 " | 45.00 |
| Tontetra | 6960 | " " | 4.5 " | 45.00 |

Lamps for 220 or 500 Volt Circuits.

These lamps are arranged to operate in series on 220 or 500 volt circuits. For 220 volts, two lamps, and for 500 volts, five lamps, are run in series. Like the 110 volt lamps, they will burn from 100 to 150 hours with one trimming, and are furnished to operate at either 3 or 4.5 amperes. The list price includes complete lamp, with inner and outer globe, and net. In ordering, specify kind of globe desired.

| Trade Word. | Style No. | Description. | Current. | Price. |
|---------------------|-----------|---------------------|-----------|---------|
| Tonumfang | 6965 | Outdoor, plain. | 3 Amperes | \$58.00 |
| Tonvisch | 6966 | " " | 4.5 " | 58.00 |
| Tontisse | 6963 | Indoor, ornamental. | 3 " | 65.00 |
| Tonturer | 6964 | " " | 4.5 " | 65.00 |

ELECTRIC LIGHT AND POWER SUPPLIES.

WESTINGHOUSE LONG BURNING ARC LAMPS.

Alternating current—constant potential.

The cut opposite shows a new arc lamp for use on A. C. circuits. It is of the long burning type, and has a life of from 75 to 125 hours with one trimming.

This lamp possesses all the advantages of the now well-known long burning type for use on direct current circuits, while it is more efficient. It has none of the disadvantages inherent in alternating lamps of the open arc form, as it is noiseless, and gives a uniform, steady, brilliant and evenly diffused light. The cost of carbons becomes insignificant because of their long life. One solid and one cored carbon is used for a trim ; these are so proportioned that the stub left in the upper holder is used for a lower carbon for the next run. This lamp does not require an economy coil, as each lamp is provided with a choke coil, which reduces the line potential to that required by the arc, which is about 70 volts. This coil is provided with several loops, so that by proper selection the lamp may be connected to lines varying in potential from 95 to 120 volts ; or may be adjusted for circuits of different alternations. These lamps are adjusted for 6 amperes, and consume 450 true watts. The method of supporting and clamping the globes is such that re-trimming is a very simple and quick operation. Each lamp is provided with a cut-out switch.



Style No. 7008.
Ornamental.

Alternating Current—Constant Potential Arc Lamps.

These lamps are made for both indoor and outdoor service, as listed below.

| Trade Word. | Style No. | Description. | Price. |
|------------------|-----------|---------------------|---------|
| Tooverziek | 7007 | Plain, outdoor. | \$48.00 |
| Tapaccio | 7008 | Ornamental, indoor. | 50.00 |

ELECTRIC LIGHT AND POWER SUPPLIES.

GLOBES FOR WESTINGHOUSE LONG BURNING ARC LAMPS.

Outer Globe for Long Burning D. C. Arc Lamp.

These globes are shipped only in original packages, containing one dozen each. They are carefully packed and are shipped at purchaser's risk. In ordering specify kind of glass desired.

| Trade Word. | Style No. | Description. | Price. |
|-------------|-----------|------------------|--------------------|
| Tonweise. | 6967. | Clear glass..... | per dozen, \$15.00 |
| Tonwelt. | 6967. | Opal | " 17.00 |
| Tonzeichen. | 6967. | Alabaster..... | " 20.00 |

Inner Globe for Long Burning D. C. Arc Lamp.

These globes are carefully packed and shipped at purchaser's risk. In ordering, specify kind of glass desired.

| Trade Word. | Style No. | Description. | Price. |
|-------------|-----------|------------------|-------------------|
| Toognagel. | 6968. | Clear glass..... | per dozen, \$6.00 |
| Toogschaae. | 6968. | Opal | " 6.50 |
| Tooisel. | 6968. | Alabaster | " 7.00 |

Outer Globe for Long Burning A. C. Arc Lamp.

In ordering, specify kind of glass desired. The globes are supplied only in original packages containing one dozen each. They are carefully packed and shipped at purchaser's risk.

| Trade Word. | Style No. | Description. | Price. |
|-------------|-----------|------------------|--------------------|
| Topadizas. | 7009. | Clear glass..... | per dozen, \$15.00 |
| Tapadizo. | 7009. | Opal | " 17.00 |
| Topais. | 7009. | Alabaster | " 20.00 |

Inner Globe for Long Burning A. C. Arc Lamp.

In ordering, specify kind of glass desired. We pack these globes very carefully and ship at purchaser's risk.

| Trade Word. | Style No. | Description. | Price. |
|-------------|-----------|------------------|-------------------|
| Topanta. | 7010. | Clear glass..... | per dozen, \$6.00 |
| Toparais. | 7010. | Opal..... | " 6.50 |
| Toporan. | 7010. | Alabaster .. | " 7.00 |

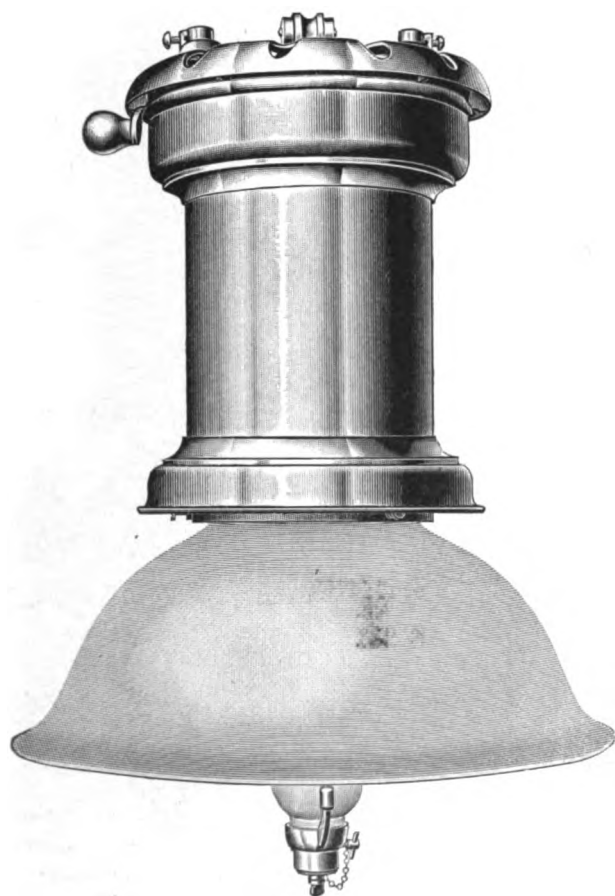
Globe Net for Globe Described Above.

These nets are made of brass wire, with 1½-inch mesh.

| Trade Word. | Style No. | Description. | Price. |
|-------------|-----------|----------------|-------------------|
| Toomeloos. | 6969. | Globe net..... | per dozen, \$4.00 |

ELECTRIC LIGHT AND POWER SUPPLIES.

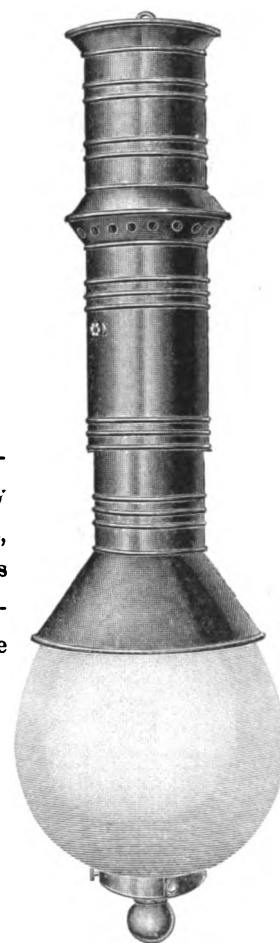
PERKINS' ENCLOSED ARC LAMPS.



Style 4.
24 inches long.

For 220 volt constant
potential circuits.

These lamps are de-
signed to burn singly
across a 220 volt circuit,
consuming $2\frac{1}{2}$ amperes
and burn for approximat-
ely 150 hours with one
pair of carbons.



Style B.
40½ inches long.

Trade Word.

| | | | Price. |
|------------|----------|---|---------|
| Militant. | Style 1. | 24 inches long, bright or dull, brass finish..... | \$35.00 |
| Militated. | " 4. | 24 " " japanned case..... | 35.00 |
| Milkboy. | " B. | 40½ " " " finish..... | 35.00 |

The above lamps are furnished with outer globes or shades as may be desired. Globes will be sent unless otherwise specified.

Prices include lamp complete, with opalescent or clear inner globe and opalescent or clear outer globe or opal shade.

ELECTRIC LIGHT AND POWER SUPPLIES.

JANDUS ENCLOSED ARC LAMPS.

These lamps are designed for operation on constant potential circuits, both direct and alternating; also on constant current circuits of 6 to 7 amperes.



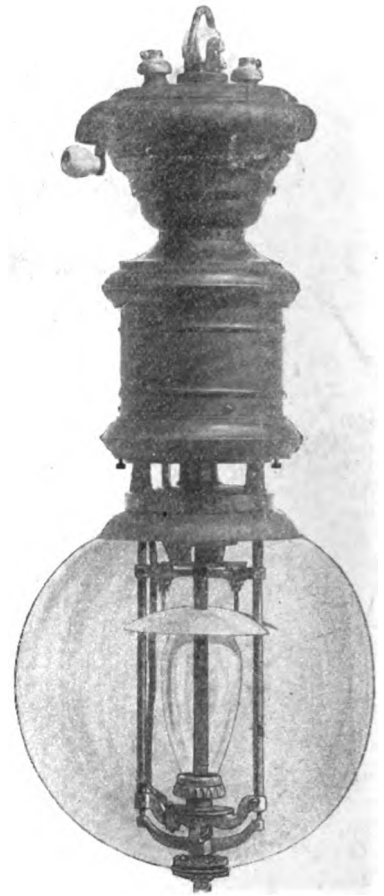
Direct current standard
inside lamp. Brass finish.

The Standard Lamp

shown on the left of this page is 36 inches long and is designed for operation singly on direct current circuits 110 to 120 volts, burns for 150 hours with one $\frac{1}{2}$ x 12-inch solid carbon; finished in polished brass for inside use and black for outside use.

The Alternating Current Lamp

is designed to operate on multiple alternating circuits of from 7000 to 16000 alternations and is practically noiseless.



Alternating current outside
lamp, black finish.

The lamp operates at about 70 volts at the arc and consumes 6 amperes; having a total consumption of about 450 watts across the lamp terminals. A reactance coil is embodied as part of the lamp, which can be furnished to operate on any voltage between 100 and 120. The carbons are of 8 and 5 inch lengths, so proportioned that the stud of the upper may be used as a lower when trimming; lamp operates from 80 to 100 hours with one carbon.

The Constant Current Lamp

is similar in design to the standard constant potential lamp; the magnet is differentially wound; simple and effective mechanical and emergency cut-outs are provided, also an adjusting coil for the arc potential. Is designed for operation on circuits of 6 to 7 amperes.

ELECTRIC LIGHT AND POWER SUPPLIES.

JANDUS ENCLOSED ARC LAMPS.



25 inch lamp.

The twenty-five inch type of lamp has the same general feature as the standard lamp with the mechanism changed to meet the requirements of a shorter lamp; is finished in brass for inside use or a special iron housing for outside or factory use.

The twenty-five inch 3-3½ ampere lamp is same as the regular twenty-five inch lamp, except in having different casing and a smaller outer globe. Any of the Jandus lamps can be furnished with flaring shades instead of globes if so desired.

25 inch Junior 3-3½
ampere.

| Trade Word. | | | | | Price. |
|-------------|--|---------|-------------|--|---------|
| Milken. | Standard constant potential lamp, less direct current. | Inside | each, | | \$30.00 |
| Milkiness. | “ “ “ “ “ “ | Outside | “ | | 30.00 |
| Milkpail. | “ “ “ “ alternating current. | Inside | “ | | 35.00 |
| Millenary. | “ “ “ “ “ “ | Outside | “ | | 35.00 |
| Millenium. | Constant current arc lamp. | Inside | “ | | 35.00 |
| Millesimal. | “ “ “ | Outside | “ | | 35.00 |
| Milliard. | 25 inch lamp. | Inside | “ | | 30.00 |
| Milliner. | “ “ | Outside | “ | | 30.00 |
| Millpond. | “ “ junior lamp. | Inside | “ | | 30.00 |
| Milsey. | “ “ “ | Outside | “ | | 30.00 |

Prices include lamp complete with inner and outer globes; unless otherwise specified, inside lamps will be furnished with opal inner and outer globes and outside lamps with clear inner and outer globes.



ELECTRIC LIGHT AND POWER SUPPLIES.

"ELECTRA" NUERNBERG CARBONS.

Soft Cored Uppers for Direct Current.

| Trade Word. | Dimensions. | | Price in 1000 Lots or Over. | Price Less Than 1000 Lots. | Trade Word. | Dimensions. | | Price in 1000 Lots or Over. | Price Less Than 1000 Lots. |
|------------------|--------------------------------|-------------|-----------------------------|----------------------------|------------------|--------------------|-------------|-----------------------------|----------------------------|
| | Inches. | Millimet'rs | | | | Inches. | Millimet'rs | | |
| Mimetic | $\frac{7}{8}$ x $7\frac{1}{2}$ | 11x190 | \$20.00 | \$22.00 | Mineralogy | $\frac{7}{8}$ x 10 | 16x255 | \$32.80 | \$36.10 |
| Mimicry | $\frac{7}{8}$ x $7\frac{1}{2}$ | 13x190 | 22.00 | 24.20 | Mingler | $\frac{7}{8}$ x 12 | 11x305 | 27.00 | 29.70 |
| Minacious | $\frac{7}{8}$ x $7\frac{1}{2}$ | 14x190 | 23.00 | 25.30 | Miniature | $\frac{7}{8}$ x 12 | 13x305 | 29.60 | 32.55 |
| Minaret | $\frac{7}{8}$ x 10 | 11x255 | 24.75 | 27.20 | Ministrant | $\frac{7}{8}$ x 12 | 14x305 | 30.80 | 33.90 |
| Mincingly | $\frac{7}{8}$ x 10 | 13x255 | 27.50 | 30.25 | Miniver | $\frac{7}{8}$ x 12 | 16x305 | 36.60 | 40.15 |
| Mineralist | $\frac{7}{8}$ x 10 | 14x255 | 28.10 | 30.90 | | | | | |

Solid Lower for Direct Current.

| Trade Word. | Dimensions. | | Price in 1000 Lots or Over. | Price Less Than 1000 Lots. | Trade Word. | Dimensions. | | Price in 1000 Lots or Over. | Price Less Than 1000 Lots. |
|------------------|-------------------|-------------|-----------------------------|----------------------------|------------------|--------------------------------|-------------|-----------------------------|----------------------------|
| | Inches. | Millimet'rs | | | | Inches. | Millimet'rs | | |
| Minoration | $\frac{7}{8}$ x 7 | 11x175 | \$16.00 | \$17.60 | Mirabelle | $\frac{7}{8}$ x $9\frac{1}{2}$ | 10x240 | \$22.00 | \$24.20 |
| Minority | $\frac{7}{8}$ x 7 | 13x175 | 18.00 | 19.80 | Miraculous | $\frac{7}{8}$ x $9\frac{1}{2}$ | 11x240 | 23.10 | 25.40 |
| Miocene | $\frac{7}{8}$ x 7 | 14x175 | 21.00 | 23.10 | Miradura | $\frac{7}{8}$ x $9\frac{1}{2}$ | 13x240 | 25.20 | 27.70 |

Cored Carbons for Alternating Current.

| Trade Word. | Dimensions. | | Price in 1000 Lots or Over. | Price Less Than 1000 Lots. | Trade Word. | Dimensions. | | Price in 1000 Lots or Over. | Price Less Than 1000 Lots. |
|----------------|--------------------------------|-------------|-----------------------------|----------------------------|-----------------|--------------------------------|-------------|-----------------------------|----------------------------|
| | Inches. | Millimet'rs | | | | Inches. | Millimet'rs | | |
| Mirage | $\frac{7}{8}$ x $7\frac{1}{2}$ | 13x190 | \$26.00 | \$28.60 | Mirthless | $\frac{7}{8}$ x $9\frac{1}{2}$ | 16x240 | \$38.50 | \$42.35 |
| Mirlitot | $\frac{7}{8}$ x $7\frac{1}{2}$ | 16x190 | 32.00 | 35.20 | Misbehave | $\frac{7}{8}$ x 12 | 13x305 | 35.70 | 39.27 |
| Mirmidon | $\frac{7}{8}$ x $9\frac{1}{2}$ | 13x240 | 30.25 | 33.25 | | | | | |

Solid Carbons for Direct Current Enclosed Arc Lamps.

| Trade Word. | Dimensions. | | Price in 1000 Lots or Over. | Price Less Than 1000 Lots. | Trade Word. | Dimensions. | | Price in 1000 Lots or Over. | Price Less Than 1000 Lots. |
|------------------|--------------------|-------------|-----------------------------|----------------------------|----------------|--------------------|-------------|-----------------------------|----------------------------|
| | Inches. | Millimet'rs | | | | Inches. | Millimet'rs | | |
| Miscellany | $\frac{7}{8}$ x 12 | | \$29.50 | \$31.45 | Misclaim | $\frac{7}{8}$ x 12 | | \$37.90 | \$41.75 |
| Miscible | $\frac{7}{8}$ x 12 | | 31.40 | 34.54 | | | | | |

The commercial terms for diameters of carbons for enclosed arc lamps are to be construed as follows; $\frac{7}{8}$ inch means a diameter from .392 to .398; $\frac{1}{2}$ inch means a diameter from .433 to .445; $\frac{1}{4}$ inch means a diameter from .505 to .520.



"HELIOS" CARBONS FOR CONSTANT POTENTIAL ARC LAMPS.

Soft Cored Carbons for Direct Current.

| Trade Word. | Dimensions. | | Price per 1000. | Trade Word. | Dimensions. | | Price per 1000. |
|------------------|--------------------------------|--------------|-----------------|-------------------|--------------------|--------------|-----------------|
| | Inches. | Millimeters. | | | Inches. | Millimeters. | |
| Misceit | $\frac{7}{8}$ x $7\frac{1}{2}$ | 11x190 | \$13.75 | Misfare | $\frac{7}{8}$ x 10 | 16x255 | \$32.25 |
| Miscreancy | $\frac{7}{8}$ x $7\frac{1}{2}$ | 13x190 | 16.50 | Misfer | $\frac{7}{8}$ x 12 | 11x305 | 22.00 |
| Miscreated | $\frac{7}{8}$ x $7\frac{1}{2}$ | 14x190 | 17.85 | Mislaver | $\frac{7}{8}$ x 12 | 13x305 | 26.40 |
| Misdoer | $\frac{7}{8}$ x 10 | 11x255 | 18.40 | Misnomer | $\frac{7}{8}$ x 12 | 14x305 | 28.65 |
| Misderably | $\frac{7}{8}$ x 10 | 13x255 | 22.15 | Misognamist | $\frac{7}{8}$ x 12 | 16x305 | 38.60 |
| Miserere | $\frac{7}{8}$ x 10 | 14x255 | 24.00 | | | | |

Solid Lower for Direct Current.

| Trade Word. | Dimensions. | | Price per 1000. | Trade Word. | Dimensions. | | Price per 1000. |
|------------------|-------------------|--------------|-----------------|-----------------|--------------------------------|--------------|-----------------|
| | Inches. | Millimeters. | | | Inches. | Millimeters. | |
| Misprint | $\frac{7}{8}$ x 7 | 11x175 | \$11.70 | Mistily | $\frac{7}{8}$ x $9\frac{1}{2}$ | 10x240 | \$13.90 |
| Missionary | $\frac{7}{8}$ x 7 | 13x175 | 14.35 | Mistiness | $\frac{7}{8}$ x $9\frac{1}{2}$ | 11x240 | 15.60 |
| Misive | $\frac{7}{8}$ x 7 | 14x175 | 15.65 | Misty | $\frac{7}{8}$ x $9\frac{1}{2}$ | 13x240 | 19.10 |

Cored Carbons for Alternating Current.

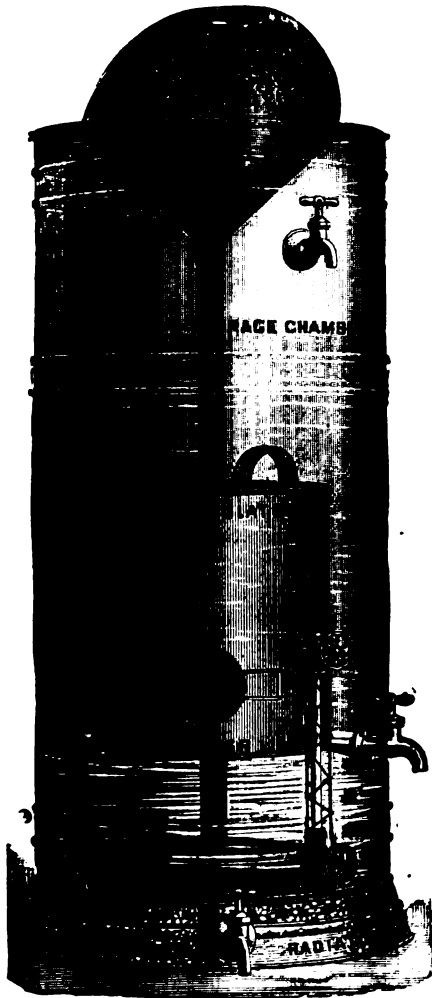
| Trade Word. | Dimensions. | | Price per 1000. | Trade Word. | Dimensions. | | Price per 1000. |
|------------------|--------------------------------|--------------|-----------------|-----------------|--------------------------------|--------------|-----------------|
| | Inches. | Millimeters. | | | Inches. | Millimeters. | |
| Mitigant | $\frac{7}{8}$ x $7\frac{1}{2}$ | 13x190 | \$16.50 | Mixedly | $\frac{7}{8}$ x $9\frac{1}{2}$ | 16x240 | \$31.00 |
| Mitigatory | $\frac{7}{8}$ x $7\frac{1}{2}$ | 16x190 | 23.25 | Moanfully | $\frac{7}{8}$ x 12 | 13x305 | 28.00 |
| Mittraille | $\frac{7}{8}$ x $9\frac{1}{2}$ | 13x240 | 22.00 | | | | |

Solid Carbons for Direct Current Enclosed Arc Lamps.

| Trade Word. | Dimensions. | | Price per 1000. | Trade Word. | Dimensions. | | Price per 1000. |
|---------------|--------------------|--------------|-----------------|--------------|--------------------|--------------|-----------------|
| | Inches. | Millimeters. | | | Inches. | Millimeters. | |
| Mobbish | $\frac{7}{8}$ x 12 | | \$25.00 | Mobile | $\frac{7}{8}$ x 12 | | \$30.00 |

ELECTRIC LIGHT AND POWER SUPPLIES.

TRACY PATENT OIL FILTER.



We have used great care in the selection of an oil filter, and in listing the Tracy Patent Oil Filter, we believe we place before our patrons an article which has no superior.

Oil that has been contaminated by use on machinery, receiving particles of iron, dirt, babbitt metal, gum and other impurities, cannot be cleaned by a single operation. Precipitation alone will not do it; steam heat alone makes the oil more fluid—it *does not filter it*.

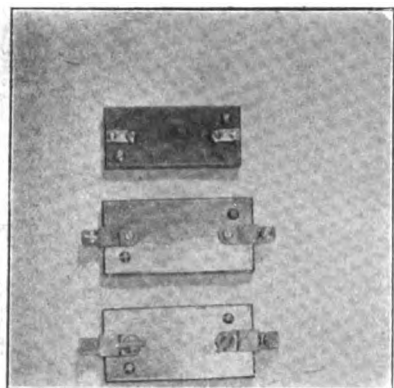
In the Tracy filter the oil is first steamed in the funnel; then precipitated under stand-pipe pressure at the bottom of the filter; then strained again by valvular action, then washed in filter by being automatically passed through water, removing loose dirt and acidity, then precipitated again by gravity, and finally clarified by passing through a filtering material by means of capillary attraction.

This filtering material does *not absorb* the impurities *into its pores*, thus soon rendering it useless, and an occasional washing with benzine will make it as good as new.

The process as above given removes every impurity from the oil and makes it absolutely safe to use on the most delicate or rapid running machinery.

| Trade Word. | No. | Storage Capacity. | Filtering Capacity. | Price. |
|------------------|-----|-------------------|--------------------------|---------|
| Image | x | 3½ Gallons. | 2 to 2½ Gallons per day. | \$21.00 |
| Imaged | 0 | 12 " | 5 " 7 " " | 28.00 |
| Imbecile | 1 | 1 Barrel. | 7 " 10 " " | 42.00 |
| Imbecility | 2 | 1 " | 14 " 18 " " | 56.00 |

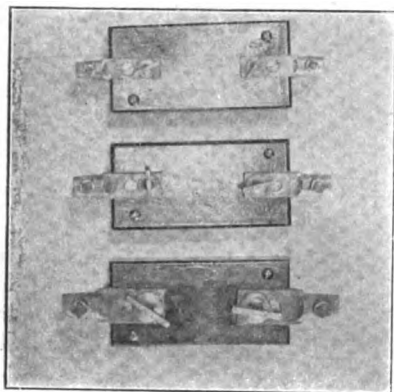
ELECTRIC LIGHT AND POWER SUPPLIES.



SINGLE POLE SLATE BASE FUSE BLOCKS.

10 to 50 ampere.

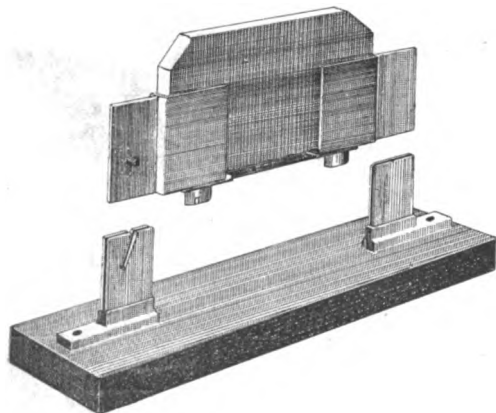
| Trade Word. | | | | | | | Price. |
|-------------|----|--------|-------|----|------|------------------------|--------|
| Mockery. | 10 | ampere | S. P. | 2½ | inch | break, 220 volt..each, | \$0.40 |
| Mockingly. | 10 | " | " | 3 | " | 500 " .. " | .50 |
| Modalist. | 20 | " | " | 2½ | " | 220 " .. " | .55 |
| Moderation. | 20 | " | " | 3½ | " | 500 " .. " | .70 |
| Modicum. | 50 | " | " | 2½ | " | 220 " .. " | .75 |
| Modificate. | 50 | " | " | 4½ | " | 500 " .. " | 1.00 |



SINGLE POLE SLATE BASE FUSE BLOCKS.

100 to 300 ampere.

| Trade Word. | 100 to 500 ampere. | | | | | Price. |
|-------------|--------------------|-------|-----------|-----------------|--------|--------|
| Modillion. | 100 ampere | S. P. | 2½ break, | 220 volt..each, | \$1.20 | |
| Modishness. | 100 “ | “ | 4½ “ | 500 “ .. “ | 1.45 | |
| Mohair. | 200 “ | “ | 2½ “ | 220 “ .. “ | 1.60 | |
| Moiety. | 200 “ | “ | 4½ “ | 500 “ .. “ | 1.90 | |
| Moistness. | 300 “ | “ | 2½ “ | 220 “ .. “ | 2.15 | |
| Molar. | 300 “ | “ | 4½ “ | 500 “ .. “ | 2.60 | |



REMOVABLE FUSE HOLDERS.

Mounted on Slate Base.

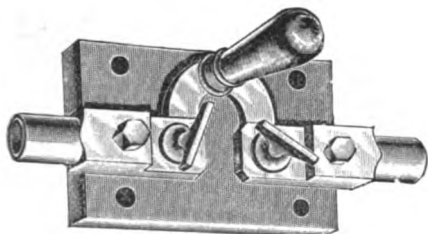
As shown in cut, the removable fuse holder supports the fuse between the copper blades. These blades fit the clips mounted on the slate base with lugs for the feeder wires. One clip has a slot to receive the pin of the entering blade. By this construction the fuse holder may be operated as a switch. They are made single pole only.

| Trade Word. | | | | | | Price. |
|-------------|-----|---------|-----------|-------|-------|---------|
| Molecular. | 100 | ampere, | polished. | ..... | each, | \$ 8.00 |
| Molestate. | 250 | " | " | ..... | " | 10.00 |
| Molinism. | 400 | " | " | ..... | " | 11.00 |

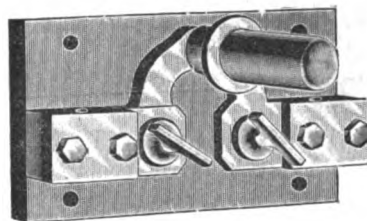
ELECTRIC LIGHT AND POWER SUPPLIES.

PLUG FUSE BLOCKS.

(150-300-600 Ampere.)



No. 153.



No. 604.

Trade Word.

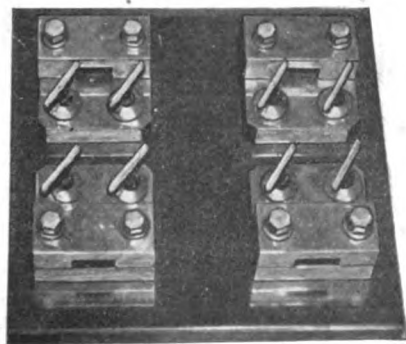
Price.

| | | | | | | |
|-------------|----------|-----------|--------------------------------|-------|------------|--------|
| Mollusk. | No. 153. | 150 Amp., | separate terminals (with plug) | ..... | 4 x 6 in. | \$3.50 |
| Momentary. | No. 303. | 300 " | " " " " | ..... | 4½ x 7 in. | 4.00 |
| Monastical. | No. 603. | 600 " | " " " " | ..... | 4½ x 8 in. | 5.00 |
| Moncean. | No. 154. | 150 Amp. | clamp terminals (with plug) | ..... | 4 x 6 in. | 3.50 |
| Mondanite. | No. 304. | 300 " | " " " " | ..... | 4½ x 7 in. | 4.00 |
| Monger. | No. 604. | 600 " | " " " " | ..... | 4½ x 8 in. | 5.00 |

1000 AMPERE DOUBLE POLE FUSE BLOCK.

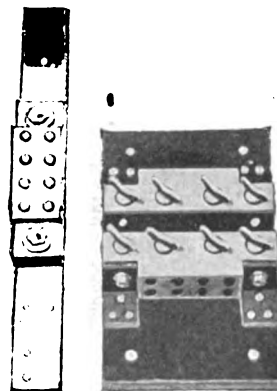
10 x 10 inches.

With clamp terminals for 2 x ½ inch bus bars.



2000 AMPERE FUSE BLOCK.

Arranged to take 8 No. 000 wires.



Special prices quoted on application.

ELECTRIC LIGHT AND POWER SUPPLIES.

DISTRIBUTION CUT-OUTS.

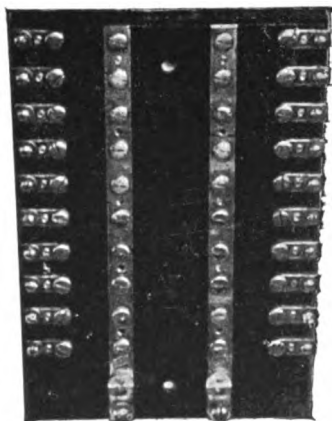


No. 1006. 10 ampere branches.

With Fuse in Mains.

| Trade Word. | Main and | 2 branches—6 x 3 inches..... | each, | Price. |
|-------------|----------|------------------------------|-------|--------|
| Monitorial. | | | | \$0.90 |
| Monitory. | 3 | —6 x 4½ | “ | 1.20 |
| Monk. | 4 | —6 x 4½ | “ | 1.44 |
| Monkhood. | 5 | —6 x 6 | “ | 1.70 |
| Monolith. | 6 | —6 x 6 | “ | 2.00 |
| Monologue. | 7 | —6 x 7½ | “ | 2.24 |
| Monotone. | 8 | —6 x 7½ | “ | 2.56 |
| Monotonous. | 10 | —6 x 9 | “ | 3.20 |
| Master. | 12 | —6 x 10½ | “ | 3.84 |
| Monstrous. | 14 | —6 x 12 | “ | 4.48 |

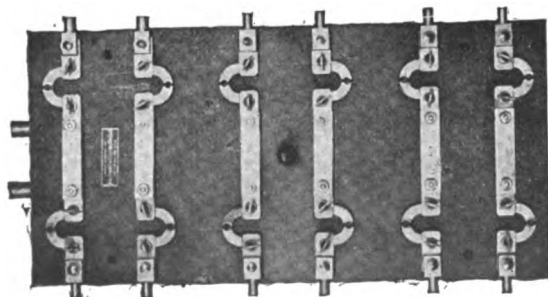
Larger sizes require special bus-bars and are higher price in proportion.
Prices on application.



No. 1110. 10 ampere branches.

Without Fuse in Mains.

| Trade Word. | Main and | 2 branches—6 x 3 inches..... | each, | Price. |
|-------------|----------|------------------------------|-------|--------|
| Montanic. | | | | \$0.66 |
| Moodily. | 3 | —6 x 4½ | “ | .96 |
| Moonbeam. | 4 | —6 x 4½ | “ | 1.20 |
| Moonlight. | 5 | —6 x 6 | “ | 1.48 |
| Moonshine. | 6 | —6 x 6 | “ | 1.72 |
| Moorish. | 7 | —6 x 7½ | “ | 2.00 |
| Mopish. | 8 | —6 x 7½ | “ | 2.28 |
| Mopsical. | 10 | —6 x 9 | “ | 2.80 |
| Morailon. | 12 | —6 x 10½ | “ | 3.32 |
| Morbleu. | 14 | —6 x 12 | “ | 3.88 |



MAIN DISTRIBUTING BOARDS.

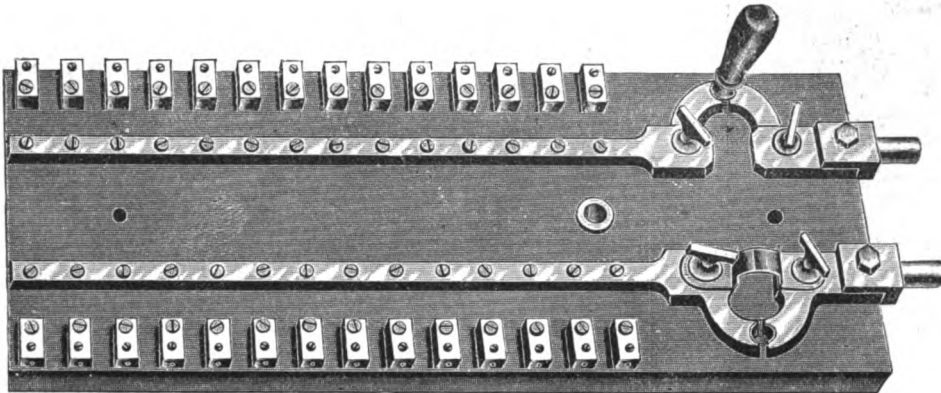
With Plug Fuse.

The mains are placed on back of board, furnished in six double branch circuits of any ampere capacity desired. Prices quoted on application.

ELECTRIC LIGHT AND POWER SUPPLIES.

DISTRIBUTION CUT-OUTS.

With main plug fuse—20 ampere branches.

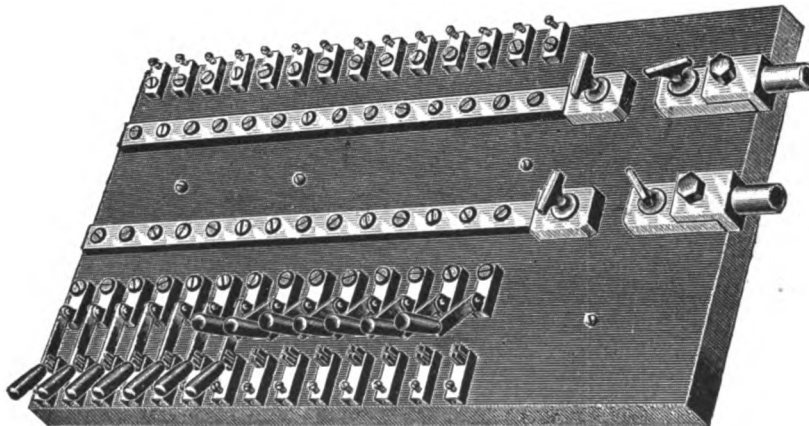


No. 1514P.

| Trade Word. | No. | | | | | Price. |
|-------------|--------|----------|-----------|-----------|-------------------------------------|---------|
| Mordicant. | 2010P. | Main and | 10 branch | circuits, | $7\frac{5}{8} \times 15\frac{1}{2}$ | \$10.00 |
| Mordiller. | 2012P. | " " | 12 " | " " | $7\frac{5}{8} \times 17\frac{1}{2}$ | 11.50 |
| Moresque. | 2014P. | " " | 14 " | " " | $7\frac{5}{8} \times 19\frac{1}{2}$ | 13.00 |
| Morgaustic. | 2016P. | " " | 16 " | " " | $7\frac{5}{8} \times 21\frac{1}{2}$ | 14.50 |
| Moribund. | 2018P. | " " | 18 " | " " | $7\frac{5}{8} \times 23\frac{1}{2}$ | 16.00 |
| Mormon. | 2020P. | " " | 20 " | " " | $7\frac{5}{8} \times 25\frac{1}{2}$ | 17.50 |

DISTRIBUTION FUSE BOARDS.

With branch switches—15 ampere branch switches.

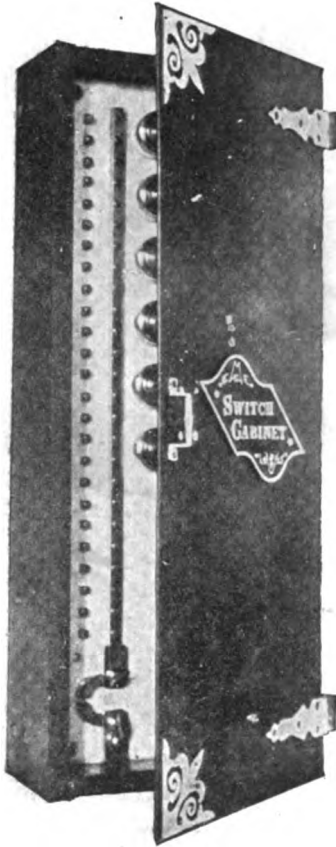


No. 1514S.

| Trade Word. | No. | | | | | Price. |
|-------------|--------|----------|--------------|--------------------------------------|--|---------|
| Moroseness. | 1510S. | Main and | 10 branches, | $10\frac{3}{4} \times 15\frac{3}{4}$ | | \$19.00 |
| Mortaise. | 1512S. | " " | 12 " | $10\frac{3}{4} \times 17\frac{3}{4}$ | | 22.00 |
| Mortmain. | 1514S. | " " | 14 " | $10\frac{3}{4} \times 19\frac{3}{4}$ | | 25.00 |
| Mortuary. | 1516S. | " " | 16 " | $10\frac{3}{4} \times 21\frac{3}{4}$ | | 28.00 |
| Mosiness. | 1518S. | " " | 18 " | $10\frac{3}{4} \times 23\frac{3}{4}$ | | 31.00 |
| Motionless. | 1520S. | " " | 20 " | $10\frac{3}{4} \times 25\frac{3}{4}$ | | 34.00 |

ELECTRIC LIGHT AND POWER SUPPLIES.

SWITCH CABINETS.



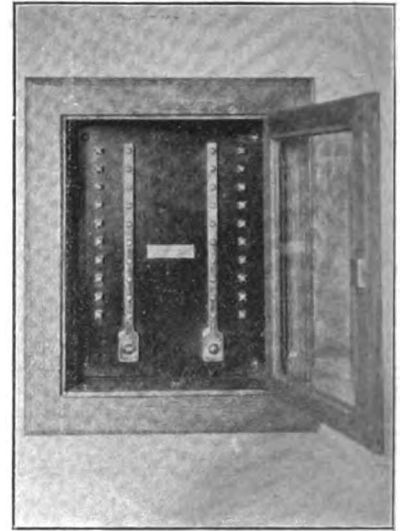
Size, 12x32x6 inches; for 25-circuit cut-out.

These cuts illustrate a type of slate cabinet, with slate lined wrought steel door, with trimmings as shown in cut, which can be furnished to special order in any finish desired. The only finish carried in stock is baked black japan, striped with gold, which presents a very handsome appearance.

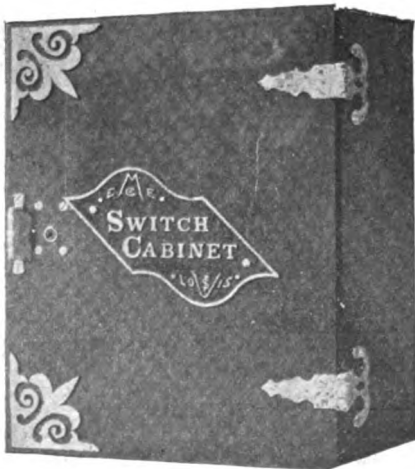
These boxes consist of slate sides, 1 inch thick, 6 inches wide over all, slate back $\frac{3}{4}$ inch thick; wire space for back connections, 2 inches; space between face of cut-out board and inside of door, 2 inches.

The sides, back and cut-out board are held in place by a special device, which combines great simplicity and strength, and at the same time leaving space between cut-out board and back of box clear for wire connections. If the back of the box is accessible the slate back may be readily removed if desired.

We carry only sizes noted below in stock, but are prepared to furnish promptly in any size or shape to meet special requirements. Prices are for cabinet alone, as shown, and do not include cut outs or cut-out board.



Cut-out cabinet with glass door.



Size, 12x16x6 inches; for 10-circuit cut-out.

Discounts vary according to quantity at one time.

We are also prepared to furnish any of these boxes having oak trim and beveled plate glass panel in door as shown above; the oak frame is made to extend about three inches beyond the edge of the slate, thereby covering junction of plaster and box; the door fits into the trim. Prices on these boxes same as on the iron boxes for equal sizes.

Black Japan Finish.

| Trade Word. | | | | Prices. |
|-------------|---------|--------------------|------------|---------|
| Motmot. | 12 x 12 | inside measurement | each, | \$12.00 |
| Mouchard. | 12 x 18 | " " | " | 15.00 |
| Moucheron. | 12 x 24 | " " | " | 18.00 |
| Moufette. | 12 x 30 | " " | " | 21.00 |
| Mouffon. | 12 x 36 | " " | " | 24.00 |

For polished brass trimmings add 20 per cent.

In ordering boxes with wood trim and glass door, affix "wood" to trade word for iron box.



OKONITE WIRES AND CABLES

Having been so long and favorably known to the trade, we respectfully call to their attention the following

FACTS.

IT IS A FACT that OKONITE INSULATED WIRES AND CABLES have the endorsement of the best electrical authorities in the *WORLD*.

IT IS A FACT that OKONITE INSULATED WIRES AND CABLES will not deteriorate, but *improve* with age.

IT IS A FACT that OKONITE INSULATED WIRES AND CABLES will not crack when exposed to the severest changes in temperature.

IT IS A FACT that OKONITE INSULATED WIRES AND CABLES will not deteriorate when placed in lime or mortar.

IT IS A FACT that OKONITE INSULATED WIRES AND CABLES are not affected when immersed in sulphuric acid.

IT IS A FACT that OKONITE INSULATED WIRES AND CABLES will stand a greater amount of kinking and torsion without permanent injury to the insulation than any other wire in the market.

IT IS A FACT that OKONITE INSULATED WIRES AND CABLES are submerged in water for three days (72 hours), and then carefully tested with Thompson's Reflecting Galvanometer.

IT IS A FACT that OKONITE INSULATED WIRES AND CABLES are tested in addition to the Galvanometer test, with a dynamo current of not less than 2,000 volts.

IT IS A FACT that OKONITE INSULATED WIRES AND CABLES when used in constructing *telephone, telegraph, electric light and railway lines or feeders*, owing to their high insulating qualities and efficiency, prove a paying investment, though the original cost may be somewhat higher than for lines constructed of cheaper material.

IT IS A FACT that OKONITE INSULATED WIRES AND CABLES were awarded the *gold medal* at the Paris Exposition in 1889.

IT IS A FACT that the OKONITE INSULATED WIRES AND CABLES are more carefully made, and giving better satisfaction, and are not only the *best*, but *cheaper* in the end, than any other wires on the market.



As General Western Agents of the OKONITE COMPANY, LIMITED, we carry in Chicago stock a complete line of their products, and are thus in position to fill all orders promptly.



WIRE.
OKONITE WIRE AND PRODUCTS.
For Low Tension Currents to 1500 Volts.

Electric Light, Power and Railway Wires.

American or Brown & Sharpe Gauge.



| SOLID CONDUCTOR. BRAIDED FINISH. | | | | STRANDED CONDUCTOR. BRAIDED FINISH. | | | |
|----------------------------------|--------------------|---------------------------------|-----------------|-------------------------------------|--------------------|---------------------------------|-----------------|
| Trade Word. | Size of Conductor. | Insulation Resistance per Mile. | Price per foot. | Trade Word. | Size of Conductor. | Insulation Resistance per Mile. | Price per Foot. |
| | B. & S. Gauge. | Megohms. | Cents. | | B. & S. Gauge. | Megohms. | Cents. |
| Magnify..... | 14 | 500 | 4½ | Mammoth..... | 14 | 500 | 6 |
| Magnifying..... | 12 | 500 | 6 | Manacle..... | 12 | 500 | 7½ |
| Magnitude..... | 10 | 500 | 7½ | Manacled..... | 11 | 500 | 8 |
| Magnolia..... | 9 | 500 | 7½ | Manacled..... | 10 | 500 | 9 |
| Magpie..... | 8 | 500 | 8½ | Manage..... | 9 | 500 | 10 |
| Mahometan..... | 7 | 500 | 11½ | Management..... | 8 | 500 | 10½ |
| Maid..... | 6 | 500 | 13½ | Manager..... | 7 | 500 | 12½ |
| Maiden..... | 5 | 500 | 16½ | Managing..... | 6 | 500 | 16½ |
| Maidenly..... | 4 | 500 | 19½ | Manakin..... | 5 | 500 | 18 |
| Maim..... | 3 | 500 | 24½ | Mandamus..... | 4 | 500 | 22½ |
| Maimed..... | 2 | 500 | 29½ | Mandarin..... | 3 | 500 | 27½ |
| Maiming..... | 1 | 500 | 37 | Mandatory..... | 2 | 500 | 36½ |
| Mainmast..... | 0 | 500 | 47½ | Mandate..... | 1 | 500 | 42½ |
| Mainsail..... | 00 | 500 | 61 | Mandrake..... | 0 | 500 | 52 |
| ..... | ..... | ..... | ..... | Mandrel..... | 00 | 500 | 63 |
| ..... | ..... | ..... | ..... | Maneater..... | 000 | 500 | 71 |
| ..... | ..... | ..... | ..... | Manful..... | 0000 | 500 | 1.01 |

For Medium Tension Currents to 3000 Volts.

| SOLID CONDUCTOR. BRAIDED FINISH. | | | | STRANDED CONDUCTOR. BRAIDED FINISH. | | | |
|----------------------------------|--------------------|---------------------------------|-----------------|-------------------------------------|--------------------|---------------------------------|-----------------|
| Trade Word. | Size of Conductor. | Insulation Resistance per Mile. | Price per Foot. | Trade Word. | Size of Conductor. | Insulation Resistance per Mile. | Price per Foot. |
| | B. & S. Gauge. | Megohms. | Cents. | | B. & S. Gauge. | Megohms. | Cents. |
| Manor..... | 14 | 1000 | 5½ | Marquis..... | 14 | 1000 | 6½ |
| Mansion..... | 12 | 1000 | 6½ | Marred..... | 12 | 1000 | 7½ |
| Mantle..... | 10 | 1000 | 7½ | Marriage..... | 11 | 1000 | 9½ |
| Mantled..... | 9 | 1000 | 8 | Married..... | 10 | 1000 | 10½ |
| Mantling..... | 8 | 1000 | 10½ | Marring..... | 9 | 1000 | 11½ |
| Manual..... | 7 | 1000 | 12½ | Marrow..... | 8 | 1000 | 12½ |
| Manually..... | 6 | 1000 | 15½ | Marry..... | 7 | 1000 | 13½ |
| Manuscript..... | 5 | 1000 | 18½ | Marrying..... | 6 | 1000 | 18½ |
| Map..... | 4 | 1000 | 22 | Mars..... | 5 | 1000 | 20½ |
| Maple..... | 3 | 1000 | 27½ | Marshal..... | 4 | 1000 | 25 |
| Mapped..... | 2 | 1000 | 32½ | Marshaled..... | 3 | 1000 | 31½ |
| Mapping..... | 1 | 1000 | 42½ | Marshaling..... | 2 | 1000 | 43½ |
| Mar..... | 0 | 1000 | 53½ | Marshy..... | 1 | 1000 | 48½ |
| Maraud..... | 00 | 1000 | 68½ | Marsupial..... | 0 | 1000 | 59½ |
| ..... | ..... | ..... | ..... | Mart..... | 00 | 1000 | 68½ |
| ..... | ..... | ..... | ..... | Martyr..... | 000 | 1000 | 78½ |
| ..... | ..... | ..... | ..... | Martyrdom..... | 0000 | 1000 | 1.11 |

Use trade words in ordering above wire.

We are prepared to furnish and carry in stock twin conductor parallel Okonite wires, single and double braided, the latter conforming with the underwriter's present requirements for use in Loricated Conduit. See page 309.

WIRE.



OKONITE WIRES AND PRODUCTS.

For High Tension Currents to 5000 Volts.

Electric Light Power and Railway Wires.

For Underground Service.

American or Brown & Sharpe Gauge.



SOLID CONDUCTOR, BRAIDED FINISH.

STRANDED CONDUCTOR, BRAIDED FINISH.

| Trade Word. | Size of Conductor. | Insulation Resistance Per Mile. | Price Per Foot. |
|-----------------|--------------------|---------------------------------|-----------------|
| | B. & S. Gauge. | Megohms. | Cents. |
| Master..... | 14 | 1500 | 6½ |
| Mastered..... | 12 | 1500 | 8 |
| Mastering..... | 10 | 1500 | 8½ |
| Masterless..... | 9 | 1500 | 9 |
| Masterly..... | 8 | 1500 | 11¼ |
| Mastership..... | 7 | 1500 | 14 |
| Masticate..... | 6 | 1500 | 18½ |
| Masticated..... | 5 | 1500 | 22½ |
| Mastiff..... | 4 | 1500 | 26 |
| Mastodon..... | 3 | 1500 | 33¾ |
| Matadore..... | 2 | 1500 | 38½ |
| Match..... | 1 | 1500 | 51½ |
| Matched..... | 0 | 1500 | 66½ |
| Matching..... | 00 | 1500 | 84½ |
| | | | |
| | | | |
| | | | |

| Trade Word. | Size of Conductor. | Insulation Resistance Per Mile. | Price Per Foot. |
|-----------------|--------------------|---------------------------------|-----------------|
| | B. & S. Gauge. | Megohms. | Cents. |
| Maxim..... | 14 | 1500 | 9¼ |
| Mayor..... | 12 | 1500 | 10¾ |
| Mayoralty..... | 11 | 1500 | 11½ |
| Mazy..... | 10 | 1500 | 13¼ |
| Mead..... | 9 | 1500 | 15½ |
| Meadow..... | 8 | 1500 | 16½ |
| Meager..... | 7 | 1500 | 17½ |
| Meagerness..... | 6 | 1500 | 23½ |
| Meal..... | 5 | 1500 | 25¼ |
| Mealiness..... | 4 | 1500 | 31½ |
| Mean..... | 3 | 1500 | 38½ |
| Meander..... | 2 | 1500 | 56½ |
| Meaning..... | 1 | 1500 | 61½ |
| Meaningly..... | 0 | 1500 | 76½ |
| Meanly..... | 00 | 1500 | 89 |
| Meanness..... | 000 | 1500 | 1.00 |
| Measles..... | 0000 | 1500 | 1.34 |

Use our trade words in ordering above wires.

Flexible Switch Cords.

For Electric Light, Power and Railway Use.

For Low Tension Currents to 1500 Volts. American or Brown & Sharpe Gauge.

STRANDED CONDUCTOR, PLAIN FINISH.

STRANDED CONDUCTOR, BRAIDED FINISH.

| Trade Word. | Size of Conductor. | Insulation Resistance Per Mile. | Price Per Foot. |
|----------------|--------------------|---------------------------------|-----------------|
| | B. & S. Gauge. | Megohms. | Cents. |
| Measured..... | 14 | 500 | 5½ |
| Measuring..... | 12 | 500 | 6¾ |
| Meat..... | 10 | 500 | 10¼ |
| Mechanic..... | 9 | 500 | 10¾ |
| Mechanics..... | 8 | 500 | 11¾ |
| Mechanism..... | 7 | 500 | 14½ |
| Medalet..... | 6 | 500 | 20 |
| Medalist..... | 5 | 500 | 22 |
| Medallion..... | 4 | 500 | 24½ |
| Meddle..... | 3 | 500 | 32½ |
| Meddled..... | 2 | 500 | 45¾ |
| Meddler..... | 1 | 500 | 57 |
| Meddling..... | 0 | 500 | 66¾ |
| Mediate..... | 00 | 500 | 83¾ |
| Mediating..... | 000 | 500 | 1.08 |
| Mediator..... | 0000 | 500 | 1.35 |

| Trade Word. | Size of Conductor. | Insulation Resistance Per Mile. | Price Per Foot. |
|------------------|--------------------|---------------------------------|-----------------|
| | B. & S. Gauge. | Megohms. | Cents. |
| Medicate..... | 14 | 500 | 6¼ |
| Medicated..... | 12 | 500 | 7¾ |
| Medicinal..... | 10 | 500 | 11 |
| Medicine..... | 9 | 500 | 11¾ |
| Meditate..... | 8 | 500 | 12¾ |
| Meditated..... | 7 | 500 | 15¾ |
| Medium..... | 6 | 500 | 21¼ |
| Medley..... | 5 | 500 | 23½ |
| Medusa..... | 4 | 500 | 26 |
| Meek..... | 3 | 500 | 33¾ |
| Meekly..... | 2 | 500 | 47 |
| Meekness..... | 1 | 500 | 58¾ |
| Meerschraum..... | 0 | 500 | 69½ |
| Meeting..... | 00 | 500 | 86½ |
| Mellow..... | 000 | 500 | 1.11 |
| Melody..... | 0000 | 500 | 1.38 |

Use our trade words in ordering above switch cords.

WIRE.



OKONITE WIRES AND PRODUCTS.

For medium tension currents to 3,000 volts.

Flexible Switch Cords.

For Electric Light, Power and Railway use. American or Brown & Sharpe Gauge.



| STRANDED CONDUCTOR, PLAIN FINISH. | | | | STRANDED CONDUCTOR, BRAIDED FINISH. | | | |
|-----------------------------------|--------------------|-------------------------------|-------------------|-------------------------------------|--------------------|-------------------------------|-------------------|
| Trade Word. | Size of Conductor. | Insulation Resist'e per Mile. | Price per Foot | Trade Word. | Size of Conductor. | Insulation Resist'e per Mile. | Price per Foot. |
| | B. & S. Gauge. | Megohms. | Cents. | | B. & S. Gauge. | Megohms. | Cents. |
| Mentally..... | 14 | 1000 | 61 $\frac{1}{2}$ | Merino..... | 14 | 1000 | 71 $\frac{1}{2}$ |
| Mention..... | 12 | 1000 | 81 $\frac{1}{2}$ | Merit..... | 12 | 1000 | 91 $\frac{1}{2}$ |
| Mentioned.... | 10 | 1000 | 111 $\frac{1}{2}$ | Merited..... | 10 | 1000 | 12 |
| Mentor..... | 9 | 1000 | 121 $\frac{1}{2}$ | Meriting..... | 9 | 1000 | 131 $\frac{1}{2}$ |
| Mercantile.... | 8 | 1000 | 131 $\frac{1}{2}$ | Mermaid..... | 8 | 1000 | 141 $\frac{1}{2}$ |
| Mercenary..... | 7 | 1000 | 16 | Merrily..... | 7 | 1000 | 171 $\frac{1}{2}$ |
| Mercer..... | 6 | 1000 | 21 | Merriment..... | 6 | 1000 | 221 $\frac{1}{2}$ |
| Merchandise... | 5 | 1000 | 23 $\frac{5}{8}$ | Merriness..... | 5 | 1000 | 251 $\frac{1}{2}$ |
| Merchant..... | 4 | 1000 | 26 $\frac{3}{8}$ | Merry..... | 4 | 1000 | 28 |
| Merciful..... | 3 | 1000 | 35 $\frac{3}{8}$ | Mesh..... | 3 | 1000 | 371 $\frac{1}{2}$ |
| Merciless..... | 2 | 1000 | 51 | Meshed..... | 2 | 1000 | 53 |
| Mercury..... | 1 | 1000 | 59 | Meshing..... | 1 | 1000 | 611 $\frac{1}{2}$ |
| Mercy..... | 0 | 1000 | 731 $\frac{1}{2}$ | Mess..... | 0 | 1000 | 747 $\frac{1}{2}$ |
| Merely..... | 00 | 1000 | 881 $\frac{1}{2}$ | Message..... | 00 | 1000 | 911 $\frac{1}{2}$ |
| Merge..... | 000 | 1000 | 1.04 | Messenger..... | 000 | 1000 | 1.06 |
| Merged..... | 0000 | 1000 | 1.39 | Messiah..... | 0000 | 1000 | 1.43 |

For High Tension Currents to 5,000 Volts. American or Brown & Sharpe Gauge.

| STRANDED CONDUCTOR, PLAIN FINISH. | | | | STRANDED CONDUCTOR, BRAIDED FINISH. | | | |
|-----------------------------------|--------------------|-------------------------------|-------------------|-------------------------------------|--------------------|-------------------------------|-------------------|
| Trade Word. | Size of Conductor. | Insulation Resist'e per Mile. | Price per Foot. | Trade Word. | Size of Conductor. | Insulation Resist'e per Mile. | Price per Foot. |
| | B. & S. Gauge. | Megohms. | Cents. | | B. & S. Gauge. | Megohms. | Cents. |
| Metalloid..... | 14 | 1500 | 91 $\frac{1}{8}$ | Midst..... | 14 | 1500 | 101 $\frac{1}{8}$ |
| Metaphor..... | 12 | 1500 | 11 | Midway..... | 12 | 1500 | 12 |
| Meteor..... | 10 | 1500 | 14 $\frac{1}{4}$ | Midwife..... | 10 | 1500 | 16 |
| Method..... | 9 | 1500 | 16 $\frac{1}{4}$ | Midwifery..... | 9 | 1500 | 171 $\frac{1}{4}$ |
| Methodic..... | 8 | 1500 | 18 $\frac{3}{4}$ | Midwinter..... | 8 | 1500 | 19 $\frac{5}{8}$ |
| Methodist..... | 7 | 1500 | 21 $\frac{3}{8}$ | Miff..... | 7 | 1500 | 22 $\frac{1}{4}$ |
| Methodize..... | 6 | 1500 | 281 $\frac{1}{4}$ | Miffed..... | 6 | 1500 | 29 $\frac{1}{4}$ |
| Metrical..... | 5 | 1500 | 30 $\frac{3}{8}$ | Might..... | 5 | 1500 | 321 $\frac{1}{4}$ |
| Mettle..... | 4 | 1500 | 35 | Mighty..... | 4 | 1500 | 37 $\frac{1}{4}$ |
| Mew..... | 3 | 1500 | 441 $\frac{1}{4}$ | Migrate..... | 3 | 1500 | 461 $\frac{1}{4}$ |
| Mewing..... | 2 | 1500 | 62 $\frac{3}{4}$ | Migrating..... | 2 | 1500 | 64 $\frac{5}{8}$ |
| Miasma..... | 1 | 1500 | 741 $\frac{1}{4}$ | Migration..... | 1 | 1500 | 77 |
| Miasmial..... | 0 | 1500 | 88 | Mild..... | 0 | 1500 | 911 $\frac{1}{4}$ |
| Middling..... | 00 | 1500 | 1.03 | Milder..... | 00 | 1500 | 1.07 |
| Midland..... | 000 | 1500 | 1.32 | Mildest..... | 000 | 1500 | 1.36 |
| Midnight..... | 0000 | 1500 | 1.62 | Mildew..... | 0000 | 1500 | 1.67 |

Use our trade words in ordering above switch cords.



WIRE.
OKONITE WIRES AND PRODUCTS.
For Low Tension Currents to 1500 Volts.

The Acme Lead Cable.

American or Brown & Sharpe Gauge.



| SOLID CONDUCTOR | | | | STRANDED CONDUCTOR. | | | |
|------------------|--------------------|---------------------------------|-----------------|---------------------|-------------------|---------------------------------|-----------------|
| Trade Word. | Size of Conductor. | Insulation Resistance per Mile. | Price per Foot. | Trade Word. | Size of Conductor | Insulation Resistance per Mile. | Price per Foot. |
| | B. & S. Gauge. | Megohms. | Cents. | | B. & S. Gauge. | Megohms. | Cents. |
| Misery | 00 | 500 | 98 | Mislead | 0000 | 500 | 1.58 |
| Misform | 0 | 500 | 79 1/4 | Misleader. | 000 | 500 | 1.22 |
| Misfortune | 1 | 500 | 68 3/4 | Misleading | 00 | 500 | 1.08 |
| Misgive | 2 | 500 | 50 1/8 | Misplace | 0 | 500 | 90 1/4 |
| Misgiving | 3 | 500 | 43 3/8 | Misrule | 1 | 500 | 78 3/8 |
| Misguide | 4 | 500 | 35 1/8 | Missile | 2 | 500 | 66 3/8 |
| Misguided | 5 | 500 | 29 3/8 | Missing | 3 | 500 | 52 |
| Misguiding | 6 | 500 | 24 | Mission | 4 | 500 | 41 1/2 |
| Mishap | 8 | 500 | 17 1/4 | Misspend | 5 | 500 | 32 7/8 |
| Misjoin | 10 | 500 | 13 3/4 | Mist | 6 | 500 | 29 3/4 |
| Misjudge | 12 | 500 | 9 3/4 | Mistake | 8 | 500 | 20 3/4 |
| Misjudged | 14 | 500 | 7 3/8 | Mistaken | 10 | 500 | 16 1/2 |
| Misjudging | 16 | 500 | 6 1/4 | Mistletoe | 12 | 500 | 11 3/4 |
| Mislay | 18 | 500 | 5 3/8 | Mistreat | 14 | 500 | 9 3/4 |
| ..... | ..... | ..... | ..... | Mistress | 16 | 500 | 7 1/2 |
| ..... | ..... | ..... | ..... | Mistrust | 18 | 500 | 6 1/4 |

For High Tension Currents to 5000 Volts.

American or Brown & Sharpe Gauge.

| SOLID CONDUCTOR. | | | | STRANDED CONDUCTOR. | | | |
|------------------|--------------------|---------------------------------|-----------------|---------------------|--------------------|---------------------------------|-----------------|
| Trade Word. | Size of Conductor. | Insulation Resistance per Mile. | Price per Foot. | Trade Word. | Size of Conductor. | Insulation Resistance per Mile. | Price per Foot. |
| | B. & S. Gauge. | Megohms. | Cents. | | B. & S. Gauge. | Megohms. | Cents. |
| Misuse | 00 | 1500 | 1.19 | Mobbed | 0000 | 1500 | 1.99 |
| Misused | 0 | 1500 | 96 | Mobbing | 000 | 1500 | 1.55 |
| Miter | 1 | 1500 | 82 1/4 | Mobility | 00 | 1500 | 1.35 |
| Mitigate | 2 | 1500 | 71 1/4 | Moccasin | 0 | 1500 | 1.13 |
| Mitten | 3 | 1500 | 60 1/4 | Mock | 1 | 1500 | 94 |
| Mittimus | 4 | 1500 | 48 3/4 | Mockable | 2 | 1500 | 80 |
| Mix | 5 | 1500 | 42 3/4 | Mocked | 3 | 1500 | 69 3/4 |
| Mixing | 6 | 1500 | 34 1/4 | Mocking | 4 | 1500 | 60 3/4 |
| Mixture | 8 | 1500 | 23 1/2 | Model | 5 | 1500 | 47 5/8 |
| Moan | 10 | 1500 | 18 | Modeled | 6 | 1500 | 42 1/2 |
| Moaned | 12 | 1500 | 14 1/2 | Modeling | 8 | 1500 | 33 1/2 |
| Moaning | 14 | 1500 | 11 3/8 | Moderate | 10 | 1500 | 23 1/4 |
| Moat | 16 | 1500 | 10 1/4 | Modern | 12 | 1500 | 17 3/4 |
| Mob | 18 | 1500 | 8 3/4 | Modernize | 14 | 1500 | 14 1/4 |
| ..... | ..... | ..... | ..... | Modest | 16 | 1500 | 11 3/4 |
| ..... | ..... | ..... | ..... | Modestly | 18 | 1500 | 10 1/2 |

Use our trade words in ordering above cables.

WIRE.

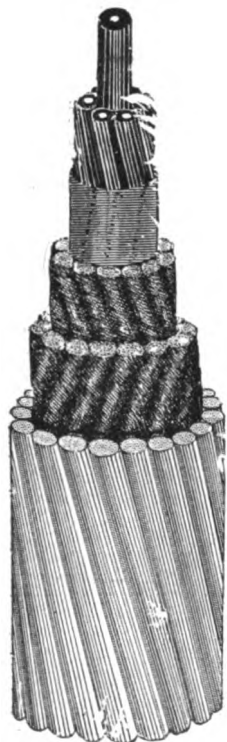
OKONITE WIRE AND PRODUCTS.

Electric Light Cables--Armored.

For Submarine Service.



Served with two layers of tarred jute, armored with galvanized iron wire.



| Trade Word. | Size of Conductor B. & S. Gauge. | Resistance per Mile Megohms. | Price per Foot. |
|-------------|-------------------------------------|------------------------------------|--------------------|
| Modify. | 8 | 1500 | \$0.54 |
| Modulate. | 7 | 1500 | .57 |
| Module. | 6 | 1500 | .80 |
| Moist. | 5 | 1500 | .88 |
| Moisten. | 4 | 1500 | .98 |
| Moistening. | 3 | 1500 | 1.09 |
| Moisture. | 2 | 1500 | 1.25 |
| Mold. | 1 | 1500 | 1.43 |
| Moldiness. | 0 | 1500 | 1.72 |
| Molest. | 00 | 1500 | 1.90 |
| Molested. | 000 | 1500 | 2.04 |
| Mollify. | 0000 | 1500 | 2.58 |

These cables are very carefully made and tested, the conductors covered with an *extra* insulation, great care being taken during every stage of manufacturing, thereby enabling us to guarantee perfect satisfaction.

Estimates submitted for armored cable, for all purposes, of any sectional area upon receipt of specifications.

Our reels are charged at cost, and when returned to our factory in good condition, freight paid, a corresponding credit will be allowed. Always send invoice and bill of lading with reels returned.

Electrolier Wire.

Single or double conductors, for electrolier work of the highest grade.

Special sizes or thickness of insulation to order.

Single Conductor.

| PLAIN. | | | TAPED. | | | BRAIDED. | | |
|--------------|-----------------------------------|---------------------------|-------------|-----------------------------------|---------------------------|-------------|-----------------------------------|---------------------------|
| Trade Word. | Size Conductors B. & S. Gauge. | Price per Foot. Cents. | Trade Word. | Size Conductors B. & S. Gauge. | Price per Foot. Cents. | Trade Word. | Size Conductors B. & S. Gauge. | Price per Foot. Cents. |
| Molt..... | 20 | 1 1/4 | Momentous | 20 | 1 1/4 | Monastery.. | 20 | 2 |
| Molting..... | 18 | 1 1/4 | Monad..... | 18 | 2 1/4 | Monastic.. | 18 | 2 1/2 |
| Molten..... | 16 | 2 1/4 | Monarch.. | 16 | 2 1/4 | Mongrel.... | 16 | 2 1/2 |
| Moment.... | 14 | 3 1/4 | Monarchal. | 14 | 3 1/2 | Monitor.... | 14 | 3 1/2 |
| Momently... | 12 | 4 1/4 | Monarchy.. | 12 | 4 1/4 | Monkey.... | 12 | 5 |

Double Conductor.

| TAPED. | | | BRAIDED. | | |
|---------------|------------------------------------|---------------------------|-----------------|------------------------------------|---------------------------|
| Trade Word. | Size Conductors. B. & S. Gauge. | Price per Foot. Cents. | Trade Word. | Size Conductors. B. & S. Gauge. | Price per Foot. Cents. |
| Monkish..... | 20 | 3 1/2 | Mould..... | 20 | 4 |
| Monogram..... | 18 | 4 1/4 | Moulding..... | 18 | 4 1/4 |
| Monopoly..... | 16 | 5 1/4 | Mouldiness..... | 16 | 5 1/4 |
| Monotony..... | 14 | 7 1/2 | Moulded..... | 14 | 7 1/2 |
| Monsoon..... | 12 | 9 1/4 | Mountebank..... | 12 | 10 |

Order by trade word.

These wires (double conductor) are easily separated by simply removing a portion of the tape; and if used with OKONITE TAPE in making joints, make the *safest* and most *reliable* fixture work.



WIRE.

OKONITE WIRE AND PRODUCTS.



Okonite Flexible Incandescent Lamp Cord.



Single Conductor.

PLAIN.

SILK COTTON.

SILK.

| Trade Word. | Size of Conductor. B. & S. Gauge. | Price per Foot. Cents. | Trade Word. | Size of Conductor. B. & S. Gauge. | Price Per Foot. Cents. | Trade Word. | Size of Conductor. B. & S. Gauge. | Price Per Foot. Cents. |
|--------------|---|---------------------------|---------------|---|---------------------------|---------------|---|---------------------------|
| Monthly..... | 22 | 1 $\frac{3}{4}$ | Moral..... | 22 | 2 $\frac{1}{4}$ | Morbidly..... | 22 | 2 $\frac{1}{4}$ |
| Monument... | 20 | 1 $\frac{3}{4}$ | Moralist..... | 20 | 2 $\frac{1}{2}$ | Morbidness... | 20 | 2 $\frac{1}{4}$ |
| Mood..... | 18 | 2 $\frac{1}{2}$ | Morality..... | 18 | 3 | Morose..... | 18 | 3 $\frac{1}{2}$ |
| Moose..... | 16 | 3 $\frac{1}{2}$ | Moralize..... | 16 | 4 $\frac{1}{4}$ | Mordant..... | 16 | 5 $\frac{1}{4}$ |
| Mope..... | 14 | 4 $\frac{1}{2}$ | Morally..... | 14 | 5 $\frac{1}{4}$ | Morning..... | 14 | 6 $\frac{3}{4}$ |
| Moped..... | 12 | 6 $\frac{1}{4}$ | Morass..... | 12 | 7 $\frac{1}{4}$ | Morphine.... | 12 | 8 $\frac{1}{2}$ |
| Moping..... | 10 | 9 $\frac{1}{4}$ | Morbid..... | 10 | 10 | Morphology.. | 10 | 12 $\frac{1}{4}$ |

Double Conductors.

Twisted.

PLAIN.

SILK COTTON.

SILK.

| Trade Word. | Size of Conductor. B. & S. Gauge. | Price Per Foot. Cents. | Trade Word. | Size of Conductor. B. & S. Gauge. | Price Per Foot. Cents. | Trade Word. | Size of Conductor. B. & S. Gauge. | Price Per Foot. Cents. |
|---------------|---|---------------------------|---------------|---|---------------------------|---------------|---|---------------------------|
| Morsel..... | 22 | 3 $\frac{3}{4}$ | Mortify..... | 22 | 5 | Motherly..... | 22 | 5 $\frac{1}{4}$ |
| Mortal..... | 20 | 4 $\frac{1}{4}$ | Mortifying... | 20 | 5 $\frac{1}{2}$ | Motion..... | 20 | 6 $\frac{1}{4}$ |
| Mortality.... | 18 | 5 $\frac{1}{2}$ | Mortise..... | 18 | 6 $\frac{3}{4}$ | Motive..... | 18 | 8 |
| Mortar..... | 16 | 7 $\frac{1}{2}$ | Mosaic..... | 16 | 9 | Motley..... | 16 | 11 $\frac{1}{4}$ |
| Mortgage.... | 14 | 10 | Moslem..... | 14 | 11 $\frac{1}{2}$ | Mottled..... | 14 | 14 $\frac{1}{2}$ |
| Mortgaged... | 12 | 13 $\frac{3}{4}$ | Mossy..... | 12 | 15 $\frac{1}{2}$ | Motto..... | 12 | 19 $\frac{1}{2}$ |
| Mortgaging.. | 10 | 19 $\frac{1}{4}$ | Mother..... | 10 | 22 | Mound..... | 10 | 27 |

Double Conductors.

Parallel braided.

SILK COTTON.

SILK.

| Trade Word. | Size of Conductor. B. & S. Gauge. | Price per Foot. Cents | Trade Word. | Size of Conductor. B. & S. Gauge. | Price per Foot. Cents. |
|----------------|--------------------------------------|--------------------------|---------------|--------------------------------------|---------------------------|
| Mount..... | 22 | 4 $\frac{1}{2}$ | Mourning..... | 22 | 5 $\frac{1}{4}$ |
| Mountain..... | 20 | 4 $\frac{3}{4}$ | Mouse..... | 20 | 5 $\frac{1}{2}$ |
| Mounting..... | 18 | 6 | Mouth..... | 18 | 7 $\frac{1}{2}$ |
| Mourn..... | 16 | 8 $\frac{1}{4}$ | Mouthed..... | 16 | 10 $\frac{1}{4}$ |
| Mourner..... | 14 | 10 $\frac{1}{4}$ | Movable..... | 14 | 13 $\frac{3}{4}$ |
| Mournful..... | 12 | 14 $\frac{1}{2}$ | Movement..... | 12 | 18 $\frac{1}{4}$ |
| Mournfully.... | 10 | 20 | Moving..... | 10 | 25 $\frac{1}{2}$ |

The Okonite lamp cords are made with our regular Okonite insulation, and braided in any color or combination of colors desired, to harmonize with any style of interior decorations.

We are prepared to furnish special Okonite lamp cord with special braided covering for use in breweries, mines and packing houses, and shall be pleased to quote prices on application.

Order by trade word.

Use Okonite tape to make a lasting and perfectly waterproof joint. Use Manson tape where there is danger of abrasion to the joint.

WIRE.

OKONITE WIRE AND PRODUCTS.

Okonite Telephone and Telegraph Wires.

Metallic Circuits, Double Conductors, Twisted Pairs.

American or Brown & Sharpe Gauge.



It is doubtless well known to the trade that Okonite wire is more extensively used by the leading Telephone and Telegraph Companies than any other make, and for such usage we recommend the following styles:

| Trade Word. | Size of Conductor B. & S. Gauge. | Outside Dia. Insulation. Inches. | Trade Word. Mouthlet. Style No. 1. | Trade Word. Mousehole. Style No. 2. | Trade Word. Mousing. Style No. 3. | Trade Word. Moustache. Style No. 5. |
|----------------|-------------------------------------|--|---|---|--|--|
| Mouthful..... | 20 | Special | Two twisted conductors, each conductor plain insulation. | Two twisted conductors, each conductor plain insulation, braided over the outside, without jute. | Two twisted conductors, each conductor braided. | Two twisted conductors, each conductor plain insulation, juted and wrapped with two reverse layers of tape. |
| Mouthless..... | 20 | ✱ | | | | |
| Moveless..... | 20 | ✱ | | | | |
| Mower..... | 19 | Special | | | | |
| Mowing..... | 19 | ✱ | | | | |
| Moyle..... | 19 | ✱ | | | | |
| Mucid..... | 18 | Special | | | | |
| Mucronate..... | 18 | ✱ | | | | |
| Muculent..... | 18 | ✱ | | | | |
| Mucus..... | 18 | ✱ | | | | |
| Muddler..... | 16 | ✱ | | | | |
| Muddy..... | 16 | ✱ | | | | |
| Mudfish..... | 16 | ✱ | | | | |
| Mudwort..... | 14 | ✱ | | | | |
| Muffling..... | 14 | ✱ | | | | |

By using two trade words any style or size may be ordered.

Telephone and Telegraph Wires.

Solid Single Conductor.

American or Brown & Sharpe Gauge.

| Trade Word. | List No. | Size of Conductor. B. & S. Gauge. | Outside Dia. Insulation. Inches. | Trade Word. | List No. | Size of Conductor. B. & S. Gauge. | Outside Dia. of Insulation. Inches. |
|----------------|----------|--------------------------------------|--|-----------------|----------|--------------------------------------|---|
| Muggard..... | 29 | 20 | ✱ | Mumble..... | 48 | 16 | ✱ |
| Mugient..... | 30 | 20 | ✱ | Mummer..... | 49 | 16 | ✱ |
| Mulatress..... | 37 | 20 | ✱ | Mumpish..... | 53 | 14 | ✱ |
| Mulctary..... | 31 | 19 | ✱ | Mundify..... | 55 | 14 | ✱ |
| Muleteer..... | 44 | 19 | ✱ | Municipal..... | 57 | 14 | ✱ |
| Mullet..... | 38 | 19 | ✱ | Munificent..... | 58 | 14 | ✱ |
| Mullicate..... | 17 | 18 | ✱ | Munition..... | 62 | 12 | ✱ |
| Mullion..... | 32 | 18 | ✱ | Mural..... | 63 | 12 | ✱ |
| Mullifoil..... | 33 | 18 | ✱ | Murenger..... | 64 | 12 | ✱ |
| Multiple..... | 34 | 18 | ✱ | Muriate..... | 65 | 12 | ✱ |
| Multitude..... | 45 | 16 | ✱ | Muriform..... | 67 | 10 | ✱ |
| Multum..... | 47 | 16 | ✱ | Murky..... | 35 | 10 | ✱ |
| | | | | Murmuring..... | 36 | 10 | ✱ |

In ordering by trade word or trade number always specify whether plain or braided.

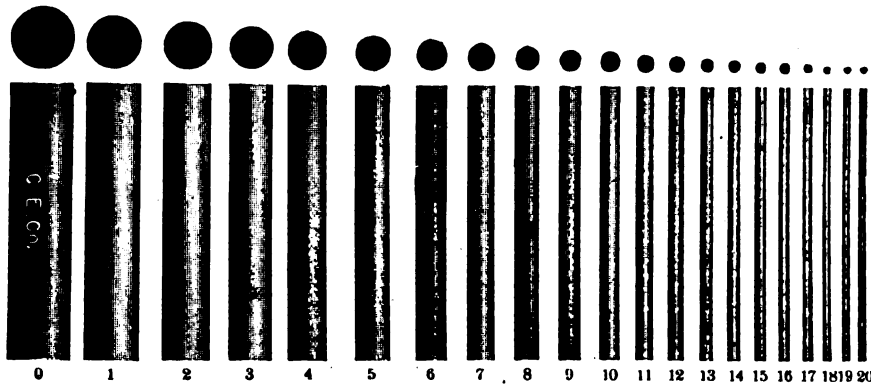
Special Okonite Wire.

For Bell and Burglar Alarm Work, Solid Conductor, American or Brown & Sharpe Gauge.

Owing to the increasing demand for rubber covered wires for use in connection with bell and burglar alarm work, The Okonite Company has placed upon the market a special insulation to meet these requirements, in sizes No. 14, No. 16, No. 18, and No. 20, both plain and braided, which we carry in stock and can offer at low prices.

WIRE.

BARE COPPER WIRE.



These cuts represent exact sizes by Brown & Sharpe's gauge.

We are in a position to quote attractive prices hard, soft and tinned bare copper wire of any size, and can furnish bare wire in any length without joints. For full tables of weights, etc., of wires, see back of catalogue.

MAGNET WIRES.

We are prepared to quote very low special prices in quantities.

Our magnet wires are of extraordinary quality in the following respects: Purity, high conductivity and softness of the copper, all of which is carefully tested and selected before covering; fine and perfectly regular covering, by which is secured the highest insulation that can be obtained with silk or cotton. The great importance of a perfectly regular covering which is of the least possible thickness and at the same time an absolute insulation, cannot be too highly estimated.

| Size of Wire, B. & S. Gauge. | | PRICE PER POUND. | | | |
|------------------------------|-------|------------------|---------|-----------------|---------|
| | | Single Covered. | | Double Covered. | |
| | | Cotton. | Silk. | Cotton. | Silk. |
| 0000 to 0 | ..... |  |  |  |  |
| 1 to 4 | ..... |  |  |  |  |
| 5 and 6 | ..... |  |  |  |  |
| 7 and 8 | ..... |  |  |  |  |
| 9 and 10 | ..... |  |  |  |  |
| 11 and 12 | ..... |  |  |  |  |
| 13 and 14 | ..... |  |  |  |  |
| 15 | ..... |  |  |  |  |
| 16 | ..... |  |  |  |  |
| 17 | ..... |  |  |  |  |
| 18 | ..... |  |  |  |  |
| 19 | ..... |  |  |  |  |
| 20 | ..... |  |  |  |  |
| 21 | ..... | \$ 0.68 | \$ 1.18 | \$ 0.74 | \$ 1.61 |
| 22 | ..... | .70 | 1.20 | .88 | 1.63 |
| 23 | ..... | .78 | 1.30 | .95 | 1.76 |
| 24 | ..... | .88 | 1.42 | 1.06 | 1.93 |
| 25 | ..... | .90 | 1.56 | 1.14 | 2.13 |
| 26 | ..... | 1.00 | 1.81 | 1.27 | 2.45 |
| 27 | ..... | 1.10 | 2.10 | 1.38 | 2.86 |
| 28 | ..... | 1.25 | 2.25 | 1.57 | 3.07 |
| 29 | ..... | 1.35 | 2.38 | 1.69 | 3.23 |
| 30 | ..... | 1.50 | 2.75 | 1.89 | 3.76 |
| 31 | ..... | 1.65 | 2.95 | 2.07 | 4.02 |
| 32 | ..... | 1.80 | 3.25 | 2.23 | 4.40 |
| 33 | ..... | 1.95 | 3.45 | 2.28 | 4.53 |
| 34 | ..... | 2.40 | 3.90 | 2.86 | 5.10 |
| 35 | ..... | 2.85 | 4.10 | 3.42 | 5.30 |
| 36 | ..... | 3.25 | 5.85 | 3.68 | 7.78 |
| 37 | ..... | 4.37 | 7.00 | 4.93 | 8.88 |
| 38 | ..... | 6.75 | 11.00 | 7.25 | 13.63 |
| 39 | ..... | 9.00 | 13.00 | 9.50 | 14.50 |
| 40 | ..... | 11.00 | 15.00 | 12.00 | 18.00 |
| | | 13.00 | 20.00 | 15.00 | 23.00 |

Subject to market fluctuations.

In ordering magnet wires please use gauge numbers and be careful to state whether *single* or *double* covered *cotton* or *silk* insulation is wanted.

WIRE.

OFFICE WIRE.

The actual cost of office and annunciator wires being determined by weight, it is important that the insulation be most compact. This is a prominent feature of our wires, and the thoroughness of the insulation, as well as the high conductivity of the wire, can be relied upon.

Double braided, waxed, paraffined and highly finished. In coils of about thirty pounds. Made in assorted colors. Single and double conductor.

SINGLE CONDUCTOR.

Trade Word.

| | | | | | |
|------------|-----------|------------|---------------------------------|----------|----------------------|
| Dice. | Gauge No. | B & S, 12; | approximate No. feet per pound, | 35..... | } Special prices. |
| Dickey. | " | " 14 | " " " " | 55..... | |
| Dictate. | " | " 16 | " " " " | 95..... | |
| Dictation. | " | " 18 | " " " " | 120..... | |
| Dictum. | " | " 20 | " " " " | 145..... | |
| Didapper. | " | " 22 | " " " " | | |

DOUBLE CONDUCTOR.

DUPLEX.

| | | | | |
|-------------|------------------------|---------------------------------|---------|----------------------|
| Dictator. | Gauge No. B. & S., 12; | approximate No. feet per pound, | 26..... | } Special prices. |
| Diction. | " " 14 | " " " " | 32..... | |
| Dictionary. | " " 16 | " " " " | 55..... | |
| Didactic. | " " 18 | " " " " | 80..... | |
| Didactical. | " " 20 | " " " " | ..... |  |
| Dietine. | " " 22 | " " " " | | |

ANNUNCIATOR WIRE.

Double cotton wrapped, waxed, paraffined and wound on spools. Made in assorted colors and of soft, pure copper.

Trade Word.

| | | | | |
|-------------|------------------------|---------------------------------|----------|----------------------|
| Diet. | Gauge No. B. & S., 14; | approximate No. feet per pound, | 70..... | } Special prices. |
| Dietary. | " " 16 | " " " " | 105..... | |
| Differ. | " " 18 | " " " " | 165..... | |
| Differed. | " " 20 | " " " " | 225..... | |
| Difference. | " " 22 | " " " " | ..... |  |

We also carry in stock tinned single conductor annunciator wire in the following colors, red, brown, blue, red and white mixed, and blue and white mixed. Tinned twisted duplex conductor annunciator wire, each conductor different color, and tinned twisted duplex conductor silk and cotton waxed annunciator wire for switch board work.

GAS FIXTURE WIRE.

For lighting gas by electricity.

This wire is evenly and compactly wound with three layers of cotton or silk and is highly finished. Yellow and brown carried in stock.

| Cotton. | | | Silk. | | |
|-------------|---------------------------|-------------------|-------------|---------------------------|-------------------|
| Trade Word. | | Price. | Trade Word. | | Price. |
| Difficult. | Gauge No. B. & S., 22.... | per pound, \$1.10 | Diffidence. | Gauge No. B. & S., 22.... | per pound, \$1.50 |
| Difficulty. | " " 24.... | " 1.25 | Diffident. | " " 24.... | " 1.75 |

OFFICE AND TELEPHONE CABLES.

From 3 to 100 conductors, made of any size to No. 20 B. & S. gauge copper wire, covered with cotton, compactly cabled together and braided in any color or combination of colors.

Special prices on application.



WIRE.

Owing to constant fluctuations in copper market we quote prices on application. State quantity desired. The weights in every case are approximate only. We list below standard sizes but are prepared to furnish feeder cables of any circular milage.

BANNER WEATHER-PROOF WIRE.

Prices on application.

Triple Braided.

| Trade Word. | Gauge No. B. & S. | Feet Per Pound. | Pounds per 1,000 feet. | Pounds per Mile. | Trade Word. | Gauge No. B. & S. | Feet per Pound. | Pounds per 1,000 feet. | Pounds per Mile. |
|------------------|-------------------|-----------------|------------------------|------------------|-----------------|-------------------|-----------------|------------------------|------------------|
| Diphthong | 0000 | 1.34 | 742 | 3,920 | Direction | 5 | 7.46 | 134 | 710 |
| Diploma | 000 | 1.64 | 609 | 3,215 | Directly | 6 | 9. | 111 | 585 |
| Diplomacy | 00 | 2.05 | 487 | 2,570 | Director | 8 | 13. | 73 | 385 |
| Diplomatic | 0 | 2.59 | 386 | 2,040 | Directory | 10 | 20. | 50 | 265 |
| Dipper | 1 | 3.25 | 308 | 1,625 | Dirge | 12 | 29. | 35 | 182 |
| Dipping | 2 | 4.10 | 244 | 1,289 | Dirk | 14 | 38. | 26 | 137 |
| Directed | 3 | 5.15 | 194 | 1,025 | Dirked | 16 | 48. | 21 | 113 |
| Directing | 4 | 6.25 | 160 | 845 | Dirking | 18 | 67. | 15 | 81 |

Double Braided.

| Trade Word. | Gauge No. B. & S. | Feet per Pound. | Pounds per 1,000 Feet. | Pounds per Mile. | Trade Word. | Gauge No. B. & S. | Feet per Pound. | Pounds per 1,000 Feet. | Pounds per Mile. |
|------------------|-------------------|-----------------|------------------------|------------------|-----------------|-------------------|-----------------|------------------------|------------------|
| Devout | 0000 | 1.40 | 711 | 3,754 | Diagonal | 5 | 9.10 | 110 | 580 |
| Devoutly | 000 | 1.75 | 570 | 3,010 | Diagram | 6 | 10.35 | 97 | 510 |
| Dew | 00 | 2.29 | 436 | 2,300 | Dialect | 8 | 15.52 | 64 | 340 |
| Dewey | 0 | 2.81 | 355 | 1,875 | Dialogue | 10 | 22. | 45 | 237 |
| Dexter | 1 | 3.56 | 281 | 1,482 | Diameter | 12 | 40. | 25 | 132 |
| Dexterity | 2 | 4.49 | 223 | 1,175 | Diamond | 14 | 56. | 18 | 95 |
| Dexterious | 3 | 5.45 | 184 | 969 | Diary | 16 | 76. | 13 | 69 |
| Diadem | 4 | 6.82 | 147 | 774 | Diatribes | 18 | 100. | 10 | 53 |

UNDERWRITERS' LINE WIRE.

Prices on application.

White in Color.

| Trade Word. | Gauge No. B. & S. | Feet per Pound. | Pounds per 1,000 Feet. | Pounds per Mile. | Trade Word. | Gauge No. B. & S. | Feet per Pound. | Pounds per 1,000 Feet. | Pounds per Mile. |
|-------------------|-------------------|-----------------|------------------------|------------------|-----------------|-------------------|-----------------|------------------------|------------------|
| Develop | 0000 | 1.33 | 735 | 3,880 | Devisable | 6 | 19.5 | 105 | 556 |
| Developed | 000 | 1.64 | 609 | 3,215 | Devised | 8 | 13.5 | 83 | 392 |
| Developing | 00 | 2.02 | 454 | 2,400 | Devolve | 10 | 20. | 73 | 264 |
| Development | 0 | 3. | 335 | 1,760 | Devote | 12 | 35. | 28 | 151 |
| Deviate | 1 | 3.5 | 286 | 1,509 | Devoted | 14 | 48. | 21 | 110 |
| Deviating | 2 | 5. | 240 | 1,267 | Devotion | 16 | 72. | 14 | 74 |
| Device | 4 | 6.5 | 154 | 813 | Devour | 18 | 90. | 11 | 58 |

HARD-DRAWN COPPER WIRE.

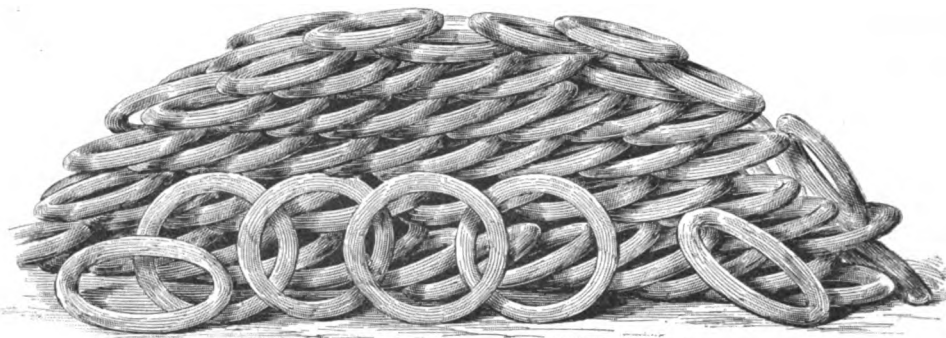
With Weather-proof Insulation.

| | | | | | | | | | |
|-------------|---------|---------|--------|-------|--|--|--|--|--|
| Trade Word. | | | | | | | | | |
| Hanged. | No. 10, | B. & S. | Gauge. | ..... |  |  |  |  |  |
| Hanging. | No. 12, | " | " | ..... |  |  |  |  |  |
| Hangman | No. 14, | " | " | ..... |  |  |  |  |  |

Prices on application.

WIRE.

B. B. GALVANIZED IRON LINE WIRE.



| Trade Word. | Size B. W. G. | Diameter. | Pounds per Mile. | Feet per Pound. | Ohms per Mile. | Tensile Strength. |
|----------------|------------------|-----------|---------------------|--------------------|-------------------|----------------------|
| Idleness | 4 | .229 | 730 | 7.23 | 7 | 1,900 |
| Idler..... | 6 | .196 | 540 | 9.59 | 9.5 | 1,500 |
| Idly..... | 8 | .165 | 380 | 13.89 | 13 | 1,100 |
| Idolater..... | 10 | .138 | 268 | 19.7 | 18 | 700 |
| Idolatri..... | 12 | .108 | 164 | 32.19 | 32 | 450 |
| Igneous..... | 14 | .083 | 96 | 55. | 55 | 250 |

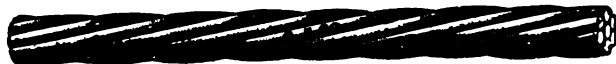
We handle line wire of three grades, as follows:

I. Extra best best. II. Best best (we recommend this grade). III. Steel.

Prices on application.

INSULATED EXTRA BEST BEST GALVANIZED IRON WIRE.

Nos. 10, 12, 14, W. & M. gauge. Net prices quoted on application.

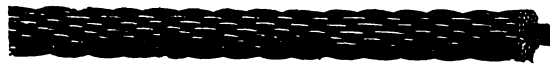
GALVANIZED STEEL WIRE
STRAND.IRON ARC LAMP
CORDAGE.

Trolley wire suspension cable, railroad and mine signal ropes, guy wire strand, etc.

This is composed of seven wires twisted together into a single strand.

| Trade Word. | Seven Wires. | Diameter in Inches. | Pounds per 100 Feet. | Tensile Strength in Pounds. |
|----------------|-----------------|---------------------------|----------------------------|-----------------------------------|
| Carving | No. 17 | $\frac{5}{16}$ | 6. | 960 |
| Carted | " 15 | $\frac{7}{16}$ | 10. | 1,600 |
| Cart | " 13 | $\frac{9}{16}$ | 16. | 2,560 |
| Carry | " 12 | $\frac{5}{8}$ | 21. | 3,360 |
| Carrot | " 11 | $\frac{3}{4}$ | 29. | 4,640 |
| Carse | " 10 | $\frac{7}{8}$ | 36. | 5,720 |
| Carriage | " 8 | $\frac{1}{2}$ | 52. | 8,320 |

Net prices quoted on application.



Very flexible, for use with pulleys.
Annealed and galvanized, with hemp center.

| Trade Word. | Diameter in Inches | Price per 100 Feet. |
|--------------|-----------------------|------------------------|
| Cash..... | $\frac{3}{4}$ | \$1.25 |
| Cashier..... | $\frac{1}{2}$ | 1.00 |

GALVANIZED STEEL GUY WIRE.

| Trade Word. | No. in W. & M. Gauge. | Pounds per 100 Feet. | Tensile Strength in Pounds. | Price per lb. in Unbrok- en Coils. |
|----------------|-----------------------------|----------------------------|-----------------------------------|--|
| Carping..... | 4 | 13.42 | 2,000 | \$0.03 |
| Carpingly..... | 6 | 9.77 | 1,600 | 3 |
| Carpus | 8 | 6.96 | 1,250 | 3 |
| Carpology..... | 10 | 4.83 | 850 | $3\frac{1}{4}$ |

WIRE.

PHOSPHOR BRONZE WIRE.

In coils.

Brown & Sharpe's gauge.

| No. | Diameter. | Price Per lb. | No. | Diameter. | Price Per lb. |
|-------|-----------|------------------|-------|-----------|------------------|
| To 16 | .050820 | \$0.50 | To 27 | .014195 | \$0.74 |
| 17 | .045257 | .51 | 28 | .012641 | .80 |
| 18 | .040303 | .51 | 29 | .011257 | .90 |
| 19 | .035890 | .52 | 30 | .010025 | 1.00 |
| 20 | .031961 | .52 | 31 | .008928 | 1.25 |
| 21 | .028462 | .54 | 32 | .007950 | 1.50 |
| 22 | .025347 | .56 | 33 | .007080 | 1.75 |
| 23 | .022571 | .58 | 34 | .006304 | 2.00 |
| 24 | .020100 | .60 | 35 | .005614 | 2.50 |
| 25 | .017900 | .64 | 36 | .005000 | 4.25 |
| 26 | .015940 | .68 |  | ..... | .... |

For spooling wire add to list as follows:

| SIZES. | SIZE OF SPOOL. | | | |
|------------------------|----------------|--------|--------|---------|
| | 1 Lb. | 5 Lb. | 10 Lb. | Larger. |
| No. 25 and Larger..... | \$0.12 | \$0.08 | \$0.03 | \$0.02 |
| " 26 to 30..... | .12 | .08 | .05 | .03 |
| " 31 to 36..... | .15 | .10 | ... | ... |

Platinum Wire.

We are prepared to furnish platinum wire and sheet platinum in all sizes from No. 12 to 40 B. & S. gauge, but owing to fluctuations in the market quote no list price. It is sold by the inch or ounce.



MOULDED RUBBER LAMP CORD.

These cords are for ordinary use where an Okonite insulation is not required, and are carefully made.

Silk Covered.

| Trade Word. | Equal in conductivity to | Price. |
|-------------|------------------------------------|--------|
| Ascetic. | No. 12 B. & S. gauge.....per yard. | \$0.40 |
| Ascribe. | No. 14 " " | .29 |
| Ascribing. | No. 16 " " | .19 |
| Ashamed. | No. 18 " " | .16 |
| Ashore. | No. 20 " " | .12 |
| Ashpan. | No. 22 " " | .12 |

Cotton Covered.

| Trade Word. | Equal in conductivity to No. 12 B. & S. gauge | Price. |
|--------------|---|--------|
| Ascend. | 14 " " | \$0.32 |
| Ascendant. | 16 " " | .21 |
| Ascending. | 18 " " | .12 |
| Ascension. | 20 " " | .09 |
| Ascertain. | 22 " " | .07 |
| Ascertained. | ..... | .07 |

Special prices on application.

WIRE.**18 PER CENT. GERMAN SILVER RESISTANCE WIRE.**

Used for resistance coils, rheostats and parts of apparatus where high resistance is required. It possesses great permanence, and changes in temperature but slightly alter its resistance.

| Size of Wire, B. & S. Gauge. | PRICE PER POUND. | | | | |
|---------------------------------|------------------|---------|-----------------|---------|--------|
| | Single Covered. | | Double Covered. | | Bare |
| | Cotton. | Silk. | Cotton. | Silk. | |
| 16 | \$ 1.40 | \$ 1.85 | \$ 1.70 | \$ 2.38 | \$.78 |
| 17 | 1.40 | 1.85 | 1.70 | 2.38 | .80 |
| 18 | 1.40 | 1.85 | 1.70 | 2.38 | .80 |
| 19 | 1.40 | 1.85 | 1.70 | 2.38 | .83 |
| 20 | 1.42 | 1.88 | 1.74 | 2.43 | .83 |
| 21 | 1.44 | 1.93 | 1.75 | 2.48 | .85 |
| 22 | 1.52 | 2.06 | 1.83 | 2.64 | .98 |
| 23 | 1.62 | 2.21 | 1.98 | 2.87 | 1.03 |
| 24 | 1.71 | 2.37 | 2.09 | 3.06 | 1.08 |
| 25 | 1.84 | 2.65 | 2.26 | 3.48 | 1.08 |
| 26 | 2.05 | 3.02 | 2.48 | 3.83 | 1.14 |
| 27 | 2.25 | 3.23 | 2.73 | 4.20 | 1.25 |
| 28 | 2.45 | 3.42 | 2.98 | 4.43 | 1.40 |
| 29 | 2.60 | 3.85 | 3.13 | 5.00 | 1.55 |
| 30 | 2.84 | 4.14 | 3.38 | 5.33 | 1.75 |
| 31 | 3.08 | 4.52 | 3.66 | 5.81 | 1.95 |
| 32 | 3.59 | 4.94 | 4.21 | 6.29 | 2.35 |
| 33 | 3.96 | 5.46 | 4.64 | 6.89 | 2.60 |
| 34 | 4.61 | 5.84 | 5.44 | 7.29 | 2.95 |
| 35 | 5.01 | 7.52 | 5.69 | 9.45 | 3.65 |
| 36 | 8.09 | 10.00 | 8.88 | 11.75 | 6.50 |
| 37 | 13.00 | 18.50 | 13.75 | 22.00 | 11.50 |
| 38 | 24.00 | 28.00 | 27.00 | 33.00 | 18.00 |
| 39 | 27.00 | 30.00 | 30.00 | 40.00 | 25.00 |
| 40 | 30.00 | 45.00 | 33.00 | 50.00 | 30.00 |

In ordering German silver resistance wire, please use gauge numbers and say whether cotton or silk insulation or bare wire is wanted, also whether it is to be single or double covered.

SPRING BRASS WIRE.

Largely used for binding wires on armatures. The Nos. 0 to 20 come in bundles of about 35 lbs. each. Nos. 20 and upwards come in bundles of about 25 lbs. each.

No discount is given when less than a full bundle is ordered.

B. & S. Gauge.

| Trade Word. | Gauge. | Price. | Trade Word. | Gauge. | Price. |
|-------------|--------|-----------------|-------------|--------|-----------------|
| Diffract. | 0 | per lb., \$0.24 | Dignitary. | 13 | per lb., \$0.24 |
| Diffuse | 1 | " .24 | Dignity. | 14 | " .24 |
| Diffused. | 2 | " .24 | Digress. | 15 | " .24 |
| Diffusing. | 3 | " .24 | Digressive. | 16 | " .24 |
| Diffusion. | 4 | " .24 | Digression. | 17 | " .25 |
| Diffusive. | 5 | " .24 | Dilate | 18 | " .25 |
| Digest. | 6 | " .24 | Dilating. | 19 | " .25 |
| Digestible. | 7 | " .24 | Dilation. | 20 | " .25 |
| Digestion. | 8 | " .24 | Dilatatory. | 21 | " .25 |
| Digit. | 9 | " .24 | Dilemma. | 22 | " .25 |
| Digital. | 10 | " .24 | Diligence. | 23 | " .30 |
| Dignified. | 11 | " .24 | Diligent. | 24 | " .32 |
| Dignify | 12 | " .24 | Dilute. | 25 | " .34 |

London Gauge.

| Trade Word. | Gauge. | Price. | Trade Word. | Gauge. | Price. |
|-------------|--------|-----------------|-------------|--------|-----------------|
| Diluted. | 26 | per lb., \$0.37 | Dimension. | 28 | per lb., \$0.41 |
| Diluting. | 27 | " .40 | Diminish | 29 | " .47 |

KRUPP RESISTANCE WIRE.

For electrical purposes, rheostats, arc lamps, heating apparatus, etc., giving a specific resistance only about ten per cent lower than mercury: this wire can be loaded permanently and to a temperature of 600° centigrade without undergoing any alteration of structure.

| Diameter in Millimeters. | Diameter in Inches. | Number of Feet Per Pound. | Resistance in Ohms Per Foot, Fahrenheit. | | | | Price per Pound. |
|--------------------------------|---------------------------|---------------------------------|--|---------|---------|---------|---------------------|
| | | | At 68° | At 176° | At 284° | At 428° | |
| 1/2 | .0196 | 937 | 1.32 | 1.38 | 1.43 | 1.51 | \$2.80 |
| 3/4 | .0295 | 415 | .587 | .610 | .633 | .667 | 2.70 |
| 1 | .0393 | 234 | .331 | .344 | .356 | .374 | 2.60 |
| 1 1/4 | .0492 | 150 | .211 | .220 | .229 | .241 | 2.50 |
| 1 1/2 | .059 | 104 | .147 | .153 | .159 | .167 | 2.40 |
| 1 3/4 | .0689 | 76 | .108 | .112 | .116 | .123 | 2.40 |
| 2 | .0787 | 58 | .0825 | .086 | .0892 | .094 | 2.30 |
| 2 1/4 | .0885 | 46 | .0653 | .0679 | .0705 | .0742 | 2.30 |
| 2 1/2 | .0984 | 37 | .0528 | .055 | .057 | .0601 | 2.30 |
| 2 3/4 | .1083 | 31 | .0437 | .0455 | .0472 | .0497 | 2.30 |
| 3 | .1181 | 26 | .0368 | .0382 | .0396 | .0417 | 2.30 |
| 3 1/2 | .1378 | 19 | .0290 | .028 | .0291 | .0307 | 2.30 |
| 4 | .1575 | 15 | .0206 | .0215 | .0224 | .0235 | 2.30 |
| 4 1/2 | .1772 | 12 | .0163 | .017 | .0176 | .0184 | 2.30 |
| 5 | .1968 | 9 | .0132 | .0138 | .0143 | .015 | 2.20 |

TEST INSTRUMENTS.



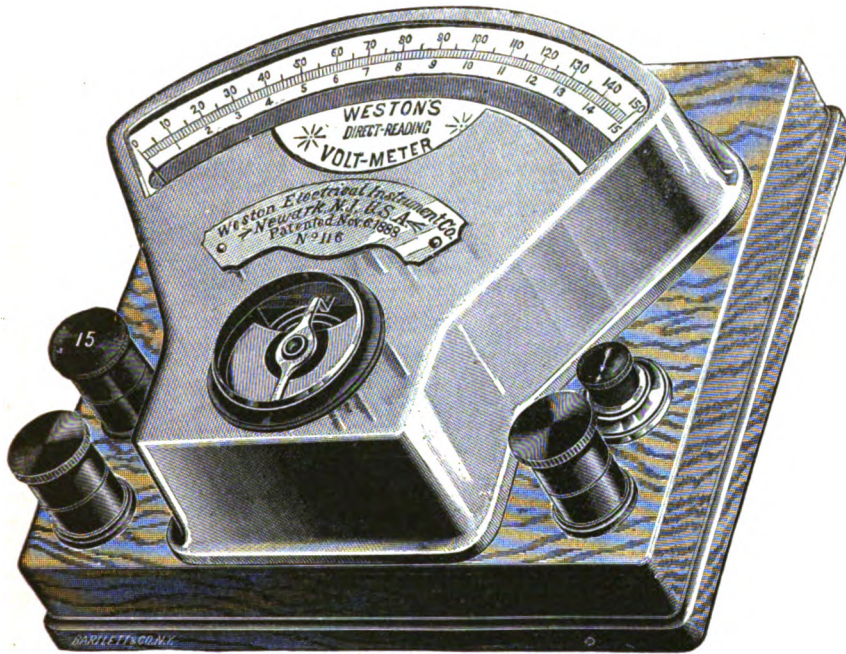
We have thoroughly revised our line of Test Instruments, and those we now present are all of known reputation and suitable for all the ordinary electrical measurements.

Electricians should possess such Testing Apparatus as will give perfectly reliable results. We feel convinced that from the Test Instruments shown on the following pages a selection can be made which will meet every ordinary requirement. Correspondence is solicited regarding both the more common Testing Apparatus as well as that of the very highest rank.

TEST INSTRUMENTS.

WESTON'S STANDARD PORTABLE DIRECT-READING VOLTMETER.

For direct current.



The cut illustrates an instrument with a scale of double values having a ratio of 10. For the upper scale-values, connection is made with the binding posts on the right and the front binding post on the left (usually not marked); for the lower scale-values, with the binding post on the right and the marked binding post on the left (in the illustration marked 15).

Fig. 1.

PRICE LIST—Double Scale.

| Trade Word. | Number. | | | Price. |
|-------------|---------|--|--|---------|
| Elongate. | 3. | Scale 0 to 150 volts, and 0 " 5 " | { Double scale with a ratio of 30. Each division on upper scale is 1 volt, reading to tenths; each division on lower scale $\frac{1}{30}$ of a volt, readable to $\frac{1}{300}$. Contact key..... } | \$75.00 |
| Empale. | 3½. | Scale 0 to 150 volts, and 0 " 3 " | { Double scale with a ratio of 50. Each division on upper scale is 1 volt, readable to tenths; each division on lower scale $\frac{1}{50}$ of a volt, readable to $\frac{1}{500}$. Contact key..... } | 75.00 |
| Elopement. | 4. | Scale 0 to 150 volts, and 0 " 15 " | { Double scale with ratio of 10. Each division on upper scale is 1 volt, readable to tenths; each division on lower scale is $\frac{1}{10}$ of a volt, readable to $\frac{1}{100}$. Contact key..... } | 75.00 |
| Elude. | 9. | Scale 0 to 600 volts, and 0 " 150 " | { Double scale with ratio of 4, reading by 4-volt divisions, readable to $\frac{1}{4}$ volt on upper scale, and by single volt divisions, readable to $\frac{1}{40}$ volt on lower scale. Contact key. } | 80.00 |
| Empaled. | 9½. | Scale 0 to 750 volts, and 0 " 150 " | { Double scale with ratio of 5, reading by 5-volt divisions, readable to $\frac{1}{5}$ volt on upper scale, and by single volt divisions, readable to $\frac{1}{50}$ volt on lower scale. Contact key. } | 80.00 |
| Emaciate. | 10. | Scale 0 to 600 volts, and 0 " 300 " | { Double scale with ratio of 2, reading by 4-volt divisions, readable to $\frac{1}{2}$ volt on upper scale, and by 2-volt divisions, readable to $\frac{1}{20}$ volt on lower scale. Contact key..... } | 80.00 |

TEST INSTRUMENTS.

WESTON'S PORTABLE HIGH RANGE VOLTMETERS.

For direct current.

Part of the resistance is contained in a separate box, called a multiplier, and especially designed to obtain high insulation. No calibrating coil or contact key

| Trade Word. | Number. | | Price. |
|-------------|---------|--|----------|
| Empalement. | 13. | Range 0 to 2,250 volts, and 0 " 150 " { No. 1 Voltmeter with scale from 0 to 150 volts and a special resistance box multiplying the value of the scale divisions by 15..... | \$100.00 |
| Empaling. | 14. | Range 0 to 3,000 volts, and 0 " 150 " { No. 1 Voltmeter with scale from 0 to 150 volts and a special resistance box multiplying the value of the scale divisions by 20..... | 105.00 |
| Empanel. | 15. | Range 0 to 3,750 volts, and 0 " 150 " { No. 1 Voltmeter with scale from 0 to 150 volts and a special resistance box multiplying the value of the scale divisions by 25..... | 115.00 |
| Empassion. | 16. | Range 0 to 4,500 volts, and 0 " 150 " { No. 1 Voltmeter with scale from 0 to 150 volts and a special resistance box multiplying the value of the scale divisions by 30..... | 125.00 |
| Emperor. | 17. | Range 0 to 5,250 volts, and 0 " 150 " { No. 1 Voltmeter with scale from 0 to 150 volts and a special resistance box multiplying the value of the scale divisions by 35..... | 135.00 |
| Emphasis. | 18. | Range 0 to 6,000 volts, and 0 " 150 " { No. 1 Voltmeter with scale from 0 to 150 volts and a special resistance box multiplying the value of the scale divisions by 40..... | 145.00 |

The above listed high range voltmeters graduated to read in lamps in addition to the graduation in volts, showing by simple inspection the number of arc lamps burning on the circuit. Additional, each. 5.00

Other multipliers, giving intermediate ranges, applied to above high range voltmeters, \$5.00 each additional. In this way voltmeters may be obtained having various ranges, giving a universal instrument applicable to a great variety of work.

INSPECTOR'S PATTERN DIRECT CURRENT VOLTMETERS.

This is the ordinary voltmeter placed in a box for convenience of carrying, and with other apparatus (as below) to facilitate rapid testing.

The prices are additional to those of the instruments.

Polished mahogany box, \$5.00.

| Trade Word. | | Price. |
|--------------|---|---------|
| Emphasize. | Polished mahogany box with compartment for lamp adapter, cord and plug..... | \$ 6.00 |
| Emphasizing. | Inspector's pattern, complete with 4 lamp adapters, cord and plug..... | 11.00 |

For prices of lamp adapters, cords, etc., see page 351.

REVERSING KEYS.

For the convenience of those who have occasion to make many and rapid tests of the distribution of potential on electric circuits of unknown polarity, a reversing key may be applied, when especially ordered, to any of our voltmeters. This key enables the user to open the circuit by turning the milled head through an angle of 45 degrees from the position of the arrow cut on the head of the key, or to reverse the direction of the current in the instrument by an additional movement of 45 degrees. The arrow points towards the side of the instrument at which the current enters when the needle is deflected over the scale. Price extra..... \$2.50

TEST INSTRUMENTS.

WESTON'S PORTABLE STANDARD DIRECT-READING VOLTMETERS.

For alternating and direct currents.



These instruments are the most exact standards known. They are not intended for switch-board use, but for Inspector's use, and for checking common central stations instruments.

Please note that these instruments cannot be left in circuit continuously, neither can the multiplier for high range voltmeters be left in circuit continuously.

All the portable alternating current voltmeters are furnished in leather cases, velvet lined, with flexible connecting cord; the prices given below include both.

Fig. 4.

1st. Single Scale Voltmeters.

| Trade Word. | Number. | Scale | Price. |
|-------------|---------|--|---------|
| Empire. | 1. | Scale 1.5 to 7.5 volts, { From one volt up in $\frac{1}{10}$ volt division, best range 2.5 to 6.5 volts, within that range readable to $\frac{1}{100}$ of a volt. | \$60.00 |
| Empirie. | 2. | " 1.5 " 10 " { From 1.5 volt up in $\frac{1}{10}$ volt division, best range 4 to 9 volts, within that range readable to $\frac{1}{100}$ of a volt. | 60.00 |
| Empirical. | 3. | " 2 " 12 " { From 2 volts up in $\frac{1}{10}$ volt division, best range 5 to 11 volts, within that range readable to $\frac{1}{100}$ of a volt. | 60.00 |
| Employable. | 4. | " 3 " 15 " { From 3 volts up in $\frac{1}{10}$ volt division, best range 5.5 to 12 volts, within that range readable to $\frac{1}{100}$ of a volt. | 60.00 |
| Employer. | 5. | " 3 " 20 " { From 3 volts up in $\frac{1}{10}$ volt division, best range 7 to 18 volts, within that range readable to $\frac{1}{100}$ of a volt. | 60.00 |
| Employing. | 6. | " 10 " 60 " { From 10 volts up in $\frac{1}{2}$ volt division, best range 25 to 55 volts, within that range readable to $\frac{1}{10}$ of a volt. | 60.00 |
| Empoison. | 7. | " 15 " 75 " { From 15 volts up in $\frac{1}{2}$ volt division, best range 30 to 65 volts, within that range readable to $\frac{1}{20}$ of a volt. | 60.00 |
| Empoisoned. | 8. | " 20 " 120 " { From 20 volts up in 1 volt division, best range 50 to 110 volts, within that range readable to $\frac{1}{10}$ of a volt. | 65.00 |
| Empoisoning | 9. | " 30 " 150 " { From 30 volts up in 1 volt division, best range 70 to 125 volts, within that range readable to $\frac{1}{10}$ of a volt. | 67.50 |
| Emporium. | 10. | " 60 " 300 " { From 60 volts up in 2 volt division, best range 140 to 250 volts within that range readable to $\frac{1}{10}$ of a volt. | 70.00 |
| Empower. | 11. | " 100 " 600 " { From 100 volts up in 5 volt division, best range 250 to 550 volts, within that range readable to $\frac{1}{10}$ of a volt. | 80.00 |

TEST INSTRUMENTS.

WESTON'S PORTABLE VOLTMETERS.

For alternating and direct current.

High range single scale, with multiplier. The multiplier is contained in a separate case.

| Trade Word. | No. | | | | Price. |
|-------------|-----|------------------------------|---|--|---------|
| Emulate | 12. | Scale 200 to 1200 volts..... | { Scale like No. 8, with ten times the value 10 volts per division.. | | \$90.00 |
| Emulating. | 13. | " 300 " 1500 " | { Scale like No. 9, with ten times the value 10 volts per division.. | | 97.50 |
| Emulation. | 14. | " 400 " 2400 " | { Scale like No. 8, with twenty times the value 20 volts per division.. | | 100.00 |
| Emulator. | 15. | " 600 " 3000 " | { Scale like No. 10, with ten times the value 20 volts per division.. | | 110.00 |

Multipliers can be furnished for any range specified, up to 6000 volts, upon application.

WESTON'S PORTABLE STANDARD DIRECT-READING VOLTMETERS.

For alternating and direct currents.

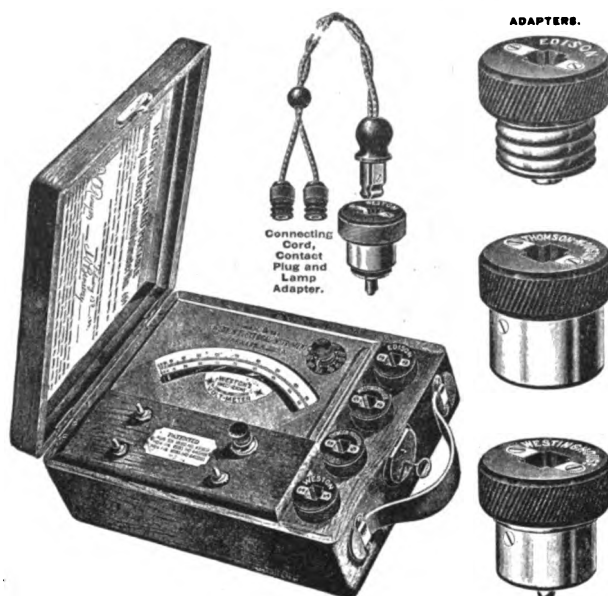
Double Scale Voltmeters. See Figure 4.

In ordering double scale instruments it is necessary to choose the ratio of the two scales as 1 to 2 for self-contained instruments, since it is not feasible to have the temperature regulator answer for two scales of a greater ratio. If a higher range is desired to be obtained by means of a separate multiplier, the ratio is not compulsory, since the temperature regulator then answers for the ranges of the instrument self-contained, whilst the dimension of the wire in the multiplier is so chosen that temperature correction for the multiplier is not necessary if the instrument is kept in circuit for only a short time. A self-contained instrument with single or double scale can thus be supplied with a multiplier to give an instrument with three or more scale values. For most practical and all laboratory purposes we recommend the double scale instruments as affording a wider range of greatest accuracy.

Price List of Double Scale Voltmeters.

| Trade Word. | No. | | | | Price. |
|--|-----|--------------------------|-------------------------------|--|---------|
| Emulgent. | 16. | Scale 3 to 15 volts..... | { Upper scale like No. 4..... | | |
| | | " 1.5 " 7.5 " | { Lower " " " 1..... | | \$70.00 |
| Emulsion. | 17. | " 3 " 20 " | { Upper " " " 5..... | | 70.00 |
| | | " 1.5 " 10 " | { Lower " " " 2..... | | |
| Emulsive. | 18. | " 20 " 120 " | { Upper " " " 8..... | | 70.00 |
| | | " 10 " 60 " | { Lower " " " 6..... | | |
| Enable. | 19. | " 30 " 150 " | { Upper " " " 9..... | | 75.00 |
| | | " 15 " 75 " | { Lower " " " 7..... | | |
| Enabling. | 20. | " 30 " 200 " | { Upper " " " 5..... | | 75.00 |
| | | " 15 " 100 " | { Lower " " " 2..... | | |
| With ten times the value per division. | | | | | |
| Enact. | 21. | " 60 " 300 " | { Upper " " " 10..... | | 80.00 |
| | | " 30 " 150 " | { Lower " " " 9..... | | |
| Enacted. | 22. | " 120 " 600 " | { Upper " " " 11..... | | 90.00 |
| | | " 60 " 300 " | { Lower " " " 10..... | | |

WESTON'S INSPECTOR'S PATTERN, ALTERNATING AND DIRECT
CURRENT VOLTMETERS.



The inspector's pattern voltmeter is designated as follows:

[illegible]

| | | |
|-------------|---|---------------|
| Trade Word. | | Price. |
| Emptied. | Edison lamp adapter..... | each, \$1. 25 |
| Emptiness. | Westinghouse lamp adapter..... | 1. 25 |
| Empty. | Thomson-Houston lamp adapter..... | " 1. 25 |
| Emptying. | Weston..... | " 1. 25 |
| Empurple. | Flexible connecting cord, with plain contact..... | " 1. 25 |
| Empurpling. | " " " contact plug, to be used with lamp adapter..... | " 1. 25 |

Multipliers can be furnished for any voltmeter. For double scale instruments the multiplier is always adjusted to the higher range. When ordering always give the serial number of the instrument to which the multiplier is to be adjusted. These multipliers are contained in one or more ventilated boxes, of which five different sizes are made as follows:

| No. | 0 | Height. | Length. | Width. |
|-----|---|---------|---------|--------|
| " | 1 | 3 | 6% | 4 |
| " | 2 | 3% | 7% | 5% |
| " | 3 | 3% | 7% | 6% |
| " | 4 | 6% | 7% | 6% |
| " | 5 | 9 | 7% | 6% |

TEST INSTRUMENTS.

PRICE LIST FOR MULTIPLIERS FOR ALTERNATING AND DIRECT CURRENT VOLTMETERS.

| Multiplier for Alternate and Direct Current Voltmeter. | Multiplying Constant. | Range of Instrument with Multiplier. | Contained in | | Price. |
|--|--------------------------|--|--------------|-------|----------|
| No. | | | 1 Box | No. | |
| No. 1 | 10 | 75 Volts | 1 Box | No. 0 | \$ 10.00 |
| " 2 | 6 | 60 " | 1 " | " 0 | 10.00 |
| " 2 | 12 | 120 " | 1 " | " 0 | 12.00 |
| " 3 | 5 | 60 " | 1 " | " 0 | 10.00 |
| " 3 | 10 | 120 " | 1 " | " 0 | 12.00 |
| " 4 and 16 | 5 | 75 " | 1 " | " 0 | 10.00 |
| " 4 and 16 | 10 | 150 " | 1 " | " 0 | 12.00 |
| " 5 and 17 | 3 | 60 " | 1 " | " 0 | 10.00 |
| " 5 and 17 | 6 | 120 " | 1 " | " 0 | 12.00 |
| " 6 | 2 | 120 " | 1 " | " 0 | 10.00 |
| " 6 | 5 | 300 " | 1 " | " 1 | 15.00 |
| " 6 | 10 | 600 " | 1 " | " 2 | 20.00 |
| " 6 | 20 | 1200 " | 1 " | " 3 | 27.50 |
| " 6 | 40 | 2400 " | 1 " | " 4 | 35.00 |
| " 6 | 50 | 3000 " | 1 " | " 4 | 42.50 |
| " 6 | 100 | 6000 " | 2 Boxes | " 4 | 75.00 |
| " 7 | 2 | 150 " | 1 Box | " 0 | 10.00 |
| " 7 | 4 | 300 " | 1 " | " 1 | 15.00 |
| " 7 | 10 | 750 " | 1 " | " 2 | 22.50 |
| " 7 | 15 | 1125 " | 1 " | " 2 | 25.00 |
| " 7 | 20 | 1500 " | 1 " | " 3 | 30.00 |
| " 7 | 40 | 3000 " | 1 " | " 4 | 42.50 |
| " 7 | 50 | 3750 " | 2 Boxes | " 3 | 60.00 |
| " 7 | 60 | 4500 " | 2 " | " 4 | 65.00 |
| " 7 | 80 | 6000 " | 2 " | " 4 | 75.00 |
| " 7 | 100 | 7500 " | 3 " | " 4 | 100.00 |
| " 8 and 18 | 3 | 360 " | 1 Box | " 1 | 15.00 |
| " 8 and 18 | 5 | 600 " | 1 " | " 1 | 17.50 |
| " 8 and 18 | 10 | 1200 " | 1 " | " 2 | 25.00 |
| " 8 and 18 | 20 | 2400 " | 1 " | " 4 | 35.00 |
| " 8 and 18 | 30 | 3600 " | 2 Boxes | " 3 | 60.00 |
| " 8 and 18 | 40 | 4800 " | 2 " | " 4 | 67.50 |
| " 8 and 18 | 50 | 6000 " | 2 " | " 4 | 75.00 |
| " 9 and 19 | 2 | 300 " | 1 Box | " 0 | 12.00 |
| " 9 and 19 | 4 | 600 " | 1 " | " 1 | 17.50 |
| " 9 and 19 | 10 | 1500 " | 1 " | " 3 | 30.00 |
| " 9 and 19 | 20 | 3000 " | 1 " | " 4 | 40.00 |
| " 9 and 19 | 30 | 4500 " | 2 Boxes | " 3 | 65.00 |
| " 9 and 19 | 40 | 6000 " | 2 " | " 4 | 75.00 |
| " 9 and 19 | 50 | 7500 " | 3 " | " 4 | 100.00 |
| " 20 | 2 | 400 " | 1 Box | " 0 | 12.00 |
| " 20 | 3 | 600 " | 1 " | " 1 | 17.50 |
| " 20 | 5 | 1000 " | 1 " | " 2 | 22.50 |
| " 20 | 10 | 2000 " | 1 " | " 3 | 35.00 |
| " 20 | 15 | 3000 " | 1 " | " 4 | 40.00 |
| " 20 | 20 | 4000 " | 2 Boxes | " 3 | 60.00 |
| " 20 | 25 | 5000 " | 2 " | " 4 | 67.50 |
| " 20 | 30 | 6000 " | 2 " | " 4 | 75.00 |
| " 20 | 40 | 8000 " | 3 " | " 4 | 100.00 |
| " 20 | 50 | 10000 " | 3 " | " 4 | 115.00 |
| " 10 and 21 | 2 | 600 " | 1 Box | " 1 | 15.00 |
| " 10 and 21 | 5 | 1500 " | 1 " | " 3 | 27.50 |
| " 10 and 21 | 10 | 3000 " | 1 " | " 4 | 40.00 |
| " 10 and 21 | 15 | 4500 " | 2 Boxes | " 3 | 65.00 |
| " 10 and 21 | 20 | 6000 " | 2 " | " 4 | 75.00 |
| " 10 and 21 | 30 | 9000 " | 3 " | " 4 | 105.00 |
| " 11 and 22 | 2 | 1200 " | 1 Box | " 1 | 20.00 |
| " 11 and 22 | 5 | 3000 " | 1 " | " 4 | 37.50 |
| " 11 and 22 | 10 | 6000 " | 2 Boxes | " 4 | 75.00 |
| " 11 and 22 | 15 | 9000 " | 3 " | " 3 | 105.00 |

For multipliers subdivided to give intermediate ranges add \$5.00 for each step to the price of the highest range.

TEST INSTRUMENTS.

WESTON PORTABLE DIRECT READING WATT-METERS.

For alternating and direct currents.



Fig. 6.



No. 1B.

| Trade Word. | No. | Range in Watts. | | Maximum Current. | Maximum Voltage. | Price. |
|------------------|-----|--------------------------|----------------------|-----------------------------|------------------|---------|
| Murrain. | 1 | 0 to 150 | 1 watt divisions. | 2 amps. | 150 volts. | \$70.00 |
| Musard. | 1A | { 0 " 75 0 " 150 | { 1/2 " " 1 " " | { 2 " 75 " 2 " 150 " | | 75 00 |
| Muscardine. | 1B | 0 to 150 | 1 " " | 2 " 150 " | | 85.00 |
| Muscatel. | 2 | 0 " 1500 | 10 " " | 10 " 150 " | | 70.00 |
| Muscular. | 2A | { 0 " 750 0 " 1500 | { 5 " " 10 " " | { 10 " 75 " 10 " 150 " | | 75.00 |
| Muse. | 3 | 0 " 3750 | 25 " " | 25 " 150 " | | 75.00 |
| Museful. | 3A | { 0 " 1500 0 " 3000 | { 10 " " 20 " " | { 25 " 75 " 25 " 150 " | | 80.00 |
| Museum. | 4 | 0 " 7500 | 50 " " | 50 " 150 " | | 75.00 |
| Mushroom. | 4A | { 0 " 3750 0 " 7500 | { 25 " " 50 " " | { 50 " 75 " 50 " 150 " | | 80.00 |
| Musical. | 5 | 0 " 15000 | 100 " " | 100 " 150 " | | 80.00 |
| Nacarating. | 5A | { 0 " 7500 0 " 15000 | { 50 " " 100 " " | { 100 " 75 " 100 " 150 " | | 85.00 |
| Nacarado. | 6 | 0 " 30000 | 200 " " | 200 " 150 " | | 85.00 |
| Nacelle. | 6B | { 0 " 15000 0 " 30000 | { 100 " " 200 " " | { 200 " 75 " 200 " 150 " | | 90.00 |

No. 1B is specially designed for inspectors, salesagents and manufacturers of incandescent lamps, and is supplied with adapters for Edison, Thomson-Houston and Westinghouse sockets and flexible connecting cords.

TEST INSTRUMENTS.

MULTIPLIERS.

For Weston alternating and direct current wattmeters.

| Multiplier of | Maximum Voltage. | For Wattmeters No. 1 to 2A. | For Wattmeters Nos. 3 and 3A. | For Wattmeters 4 to 6A. |
|---------------|------------------|-----------------------------|-------------------------------|-------------------------|
| 2 | 300 | \$12.00 | \$15.00 | \$15.00 |
| 4 | 600 | 17.50 | 20.00 | 20.00 |
| 5 | 750 | 20.00 | 22.50 | 22.50 |
| 10 | 1500 | 30.00 | 35.00 | 35.00 |
| 15 | 2250 | 35.00 | 40.00 | 60.00 |
| 20 | 3000 | 40.00 | 60.00 | 70.00 |
| 25 | 3750 | 60.00 | 70.00 | 80.00 |
| 30 | 4500 | 65.00 | 75.00 | 85.00 |
| 40 | 6000 | 75.00 | 90.00 | 100.00 |

For multipliers sub-divided to give intermediate ranges add \$5.00 for each step to the price of the highest range.

The use of these multipliers increases the voltage capacity only of the wattmeter, the maximum current carrying capacity is not increased.

WESTON PORTABLE MILLI-VOLTMETERS.

For direct current.

| Trade Word. | No. | Price. |
|-------------|--|---------|
| Nacido. | 1. 0 to $\frac{1}{2}$ volt in 100 divisions, each readable to tenths. | \$50.00 |
| Naciente. | 2. 0 to $\frac{1}{10}$ volt right and left by 100 divisions, each representing $\frac{1}{1000}$ volt. | 50.00 |
| Nacimiento. | 3. 0 to $\frac{1}{10}$ volt { Right and left by 100 divisions, with contact key, reducing sensibility ten times. | 55.00 |

WESTON PORTABLE VOLT-AMMETERS.

For direct current.

| Trade Word. | No. | Price. |
|-------------|--|---------|
| Nadadero. | No. 1. { 0 to 150 volts { Single volt divisions and $\frac{1}{10}$ ampere divisions. | \$75.00 |
| | { 0 to 1500 mil-amperes. | |

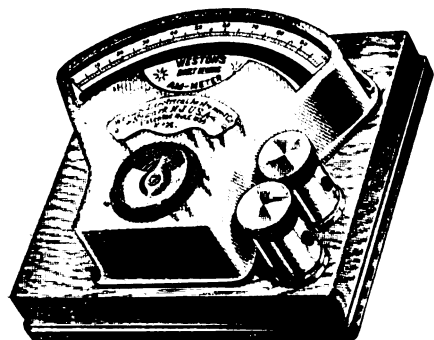
Other combinations can be made on special order, but they are not recommended in connection with high voltage or heavy currents.

WESTON PORTABLE MIL-AMMETERS.

For direct current.

| Trade Word. | No. | Price. |
|-------------|---|---------|
| Nadrenas. | 0. 150 mil-amperes 1 mil-ampere divisions | \$50.00 |
| Nafalio. | 1. 300 " 2 " " | 50.00 |
| Nagement. | 2. 600 " 5 " " | 50.00 |
| Nagueres. | 3. 1000 " 10 " " | 50.00 |
| Nailer. | 4. 1500 " 10 " " | 55.00 |

TEST INSTRUMENTS.

WESTON
PORTABLE AMMETERS.

For direct current.

| Trade Word. | No. | | | | | Price. |
|--------------|-----|-----------|----------------|------------------|-------|---------|
| Eliminate. | 1. | 5 Ampere, | $\frac{1}{20}$ | Ampere divisions | ..... | \$65.00 |
| Elite. | 2. | 15 " | $\frac{1}{10}$ | " | ..... | 65.00 |
| Elixir. | 3. | 25 " | $\frac{1}{4}$ | " | ..... | 65.00 |
| Elk. | 4. | 50 " | $\frac{1}{2}$ | " | ..... | 65.00 |
| Elliptic. | 5. | 100 " | 1 | " | ..... | 70.00 |
| Enchain. | 6. | 150 " | 1 | " | ..... | 75.00 |
| Enchained. | 7. | 200 " | 2 | " | ..... | 80.00 |
| Enchaining. | 8. | 250 " | 2 | " | ..... | 80.00 |
| Enchainment. | 9. | 300 " | 2 | " | ..... | 80.00 |
| Tradition. | 10. | 400 " | 4 | " | ..... | 90.00 |
| Traduce. | 11. | 500 " | 5 | " | ..... | 90.00 |

WHITNEY POCKET VOLTMETER
AND MIL-AMMETER.

For direct current.



These instruments are accurately calibrated and are perfectly adapted for all measurements within their range.

The cases are of silveroid and about the size of an ordinary watch.

These instruments can also be furnished having a mil-ammeter scale in addition to the volt scale.

| Trade Word. | | Price. |
|-------------|---|---------|
| Naissant. | Range 0 to 5 volts..... | \$10.00 |
| Naivement. | Double scale, volt and mil-ammeter..... | 11.00 |

TEST INSTRUMENTS.

LABORATORY AND PORTABLE STANDARD MILLI-VOLTMETERS WITH DETACHABLE SHUNTS.

Used as ammeters. For direct current.

| Trade Word. | | Price. |
|-------------|--|----------|
| Tradesman. | Laboratory standard milli-voltmeter..... | \$100.00 |
| | (Ammeter—See note.) | |
| Trading. | Portable standard milli-voltmeter..... | 50.00 |
| | (Ammeter—See note.) | |

NOTE.—The above milli-voltmeters, used in connection with the following shunts read directly in amperes, shunts are furnished in various combinations giving readings over the entire scale of the instrument for each part of the combination. Prices of the shunts being in addition to the price of the instrument.

SINGLE SHUNTS.

| Range. | Price. | Range. | Price. |
|---------------|---------|-----------------|-----------|
| 1 Ampere..... | \$10.00 | 150 Ampere..... | \$32.50 |
| 3 "..... | 12.50 | 200 "..... | 35.00 |
| 5 "..... | 15.00 | 250 "..... | 37.50 |
| 10 "..... | 15.00 | 300 "..... | 40.00 |
| 15 "..... | 15.00 | 400 "..... | 45.00 |
| 25 "..... | 17.50 | 500 "..... | 50.00 |
| 30 "..... | 20.00 | 600 "..... | 55.00 |
| 50 "..... | 22.50 | 750 "..... | 60.00 |
| 75 "..... | 25.00 | 800 "..... | 65.00 |
| 100 "..... | 30.00 | 1000 "..... | 80.00 |
| | | 1500 Ampere.... | \$130.00. |

COMBINATIONS.

Two ranges combined in one case.

| Range. | Price. | Range. | Price. |
|---------------------|---------|------------------------|---------|
| 5 and 1 Ampere..... | \$20.00 | 300 and 15 Ampere..... | \$52.50 |
| 10 and 1 "..... | 22.50 | 300 and 30 "..... | 55.00 |
| 15 and 1.5 "..... | 25.00 | 300 and 150 "..... | 60.00 |
| 15 and 3 "..... | 25.00 | 400 and 40 "..... | 60.00 |
| 30 and 3 "..... | 25.00 | 400 and 200 "..... | 65.00 |
| 40 and 4 "..... | 27.50 | 500 and 50 "..... | 62.50 |
| 50 and 5 "..... | 30.00 | 500 and 100 "..... | 65.00 |
| 75 and 15 "..... | 35.00 | 500 and 200 "..... | 65.00 |
| 100 and 10 "..... | 40.00 | 600 and 60 "..... | 65.00 |
| 150 and 15 "..... | 42.50 | 600 and 300 "..... | 80.00 |
| 150 and 30 "..... | 45.00 | 750 and 300 "..... | 90.00 |
| 200 and 20 "..... | 47.50 | 1000 and 500 "..... | 140.00 |

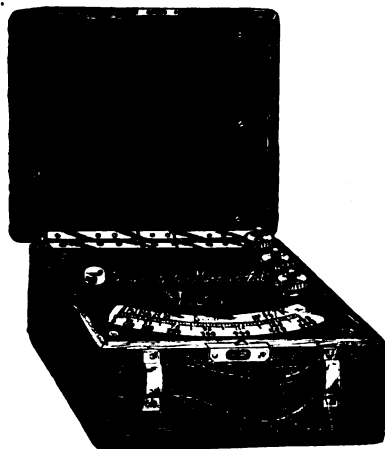
Three or more ranges combined in one case.

The sum of all ranges should not exceed 400 amperes for combinations of three, and 300 amperes for combinations of more than three.

| Range. | Price. | Range. | Price. |
|-----------------------|---------|------------------------------|---------|
| 15-3-0.75 Ampere..... | \$30.00 | 100-50-20-10-5-1 Ampere..... | \$70.00 |
| 15-3-1.5 "..... | 30.00 | 150-15-1.5 "..... | 60.00 |
| 30-15-3 "..... | 35.00 | 150-75-15 "..... | 55.00 |
| 50-5-0.5 "..... | 40.00 | 150-75-15-1.5 "..... | 65.00 |
| 50-10-1 "..... | 40.00 | 150-75-15-1.5-0.75 "..... | 70.00 |
| 50-20-5-0.5 "..... | 55.00 | 200-20-2 "..... | 55.00 |
| 75-15-1.5 "..... | 42.50 | 200-100-10 "..... | 60.00 |
| 100-10-1 "..... | 45.00 | 300-15-1.5 "..... | 60.00 |
| 100-20-2 "..... | 45.00 | 300-30-3 "..... | 60.00 |
| 100-50-20-2 "..... | 60.00 | 300-75-15 "..... | 65.00 |

TEST INSTRUMENTS.

QUEEN-WIRT PORTABLE METERS.



This form of portable instrument is the outcome of long experience with various designs. The case is of polished mahogany, well made and strong. The instrument is very light. The scale is long and well lighted, being easily read. The system is dead beat, permitting of rapid reading. The meters may be left on circuit continuously without producing an error.

In ordering alternate current meters specify the frequency for which they are intended.

All instruments are guaranteed as to accuracy and permanency.

VOLTMETERS.

Single Scale.

| Trade Word. | Direct Current. | Price Each. | Trade Word. | Alternate Current. | Price Each. |
|-------------|---------------------------------------|-------------|-------------|--------------------|-------------|
| Nalgada. | 1 to 10 volt, $\frac{1}{2}$ volt div. | \$28.00 | Nauseando. | ..... | \$30.00 |
| Namesake. | 5 " 50 " $\frac{1}{2}$ " " | 28.00 | Nauseously. | ..... | 30.00 |
| Nankeen. | 8 " 75 " $\frac{1}{2}$ " " | 28.00 | Nautilus. | ..... | 30.00 |
| Napea. | 10 " 100 " 1 " " | 28.00 | Nautique. | ..... | 30.00 |
| Napiform. | 15 " 150 " 2 " " | 30.00 | Navaja. | ..... | 32.00 |
| Naptha. | 25 " 250 " 2 " " | 32.00 | Navarchy. | ..... | 34.00 |
| Narcotine. | 30 " 300 " 4 " " | 32.00 | Navegaute. | ..... | 34.00 |
| Narcotique. | 60 " 600 " 8 " " | 35.00 | Navicular. | ..... | 37.00 |

Double Scale.

| Trade Word. | Direct Current. | Price Each. | Trade Word. | Alternate Current. | Price Each. |
|-------------|--|-------------|-------------|--------------------|-------------|
| Narigon. | 15 to 150 volt, 30 to 300 volt direct. | \$37.00 | | | |
| Narizado. | 15 " 150 " 60 " 600 " " | 40.00 | | | |
| Narrable. | 15 " 150 " direct, 15 to 150 volts alternate | 37.00 | | | |
| Narrowing. | 15 " 150 " alternate 30 to 300 volts alternate | 39.00 | | | |
| Nasality. | 15 " 150 " " 30 " 300 " direct. | 37.00 | | | |
| Nasalment. | 15 " 150 " " 60 " 600 " alternate | 42.00 | | | |

AMMETERS.

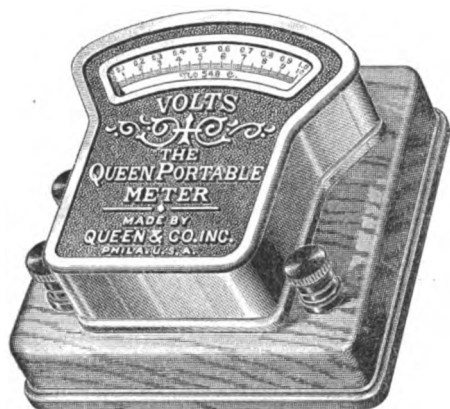
Single Scale.

| Trade Word. | Direct Current. | Price Each. | Trade Word. | Alternate Current. | Price Each. |
|-------------|---------------------------------------|-------------|--------------|--------------------|-------------|
| Nasarder. | 1 to 10 amp., $\frac{1}{2}$ amp. div. | \$28.00 | Nebuleuse. | ..... | \$30.00 |
| Nascency. | 2 " 15 " $\frac{1}{2}$ " " | 28.00 | Nebulosity. | ..... | 30.00 |
| Nasillard. | 5 " 50 " $\frac{1}{2}$ " " | 30.00 | Necessitous. | ..... | 32.00 |
| Nasturtium. | 10 " 100 " 1 " " | 30.00 | Necklace. | ..... | 32.00 |
| Nasty. | 13 " 150 " 2 " " | 32.00 | Necktie. | ..... | 34.00 |
| Natation. | 20 " 200 " 2 " " | 34.00 | Necrology. | ..... | 36.00 |
| Nastatory. | 35 " 250 " 2 " " | 36.00 | Necromancy. | ..... | 38.00 |
| Nateron. | 30 " 300 " 4 " " | 38.00 | Necropolis. | ..... | 40.00 |

Double Scale.

| Trade Word. | Direct Current. | Price Each. | Trade Word. | Alternate Current. | Price Each. |
|-------------|--|-------------|-------------|--------------------|-------------|
| Natrolite. | 5 to 50 amps. alternate, 5 to 45 amps. direct. | \$36.00 | | | |
| Naufraye. | 15 " 150 " " 12 " 125 " " | 38.00 | | | |
| Naumache. | 10 " 100 " " 9 " 90 " " | 37.00 | | | |
| Nauseating. | 20 " 200 " " 16 " 160 " " | 40.00 | | | |

TEST INSTRUMENTS.



QUEEN PORTABLE METERS.

Direct current.

A very sensitive instrument for accurate readings within its range, using a permanent magnet on the principle that the sensibility is inversely proportional to the magnet strength.

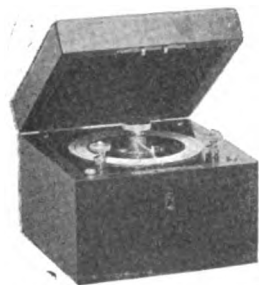
Base is of polished mahogany and the case is of finely finished brass; binding posts rubber covered. Each instrument is contained in a carrying case.

VOLTMETERS.

| Trade Word. | | | Price. |
|-------------|-----------------------------------|--|---------|
| Needment. | 0 to 1 volt, 1-100 volt divisions | | \$35.00 |
| Negado. | 0 to 1.5 " 1-50 " " | | 35.00 |
| Negligee. | 0 to 2.5 " 1-50 " " | | 36.00 |
| Negraille. | 0 to 5 " 1-20 " " | | 36.00 |
| Negress. | 0 to 10 " 1-10 " " | | 37.00 |
| Negrillon. | 0 to 1 " 0 to 10 volt | | 40.00 |
| Neighing | 0 to 5 " 0 to 125 " | | 45.00 |

AMMETERS.

| Trade Word. | | Price. |
|-------------|--|---------|
| Nemalite. | .0 to 500 milliamperes, 5 mil. divisions | \$30.00 |
| Nemophilla. | 0 to 1 ampere, 1-100 amp. divisions | 32.00 |
| Nemoroso. | 0 to 5 " 1-20 " " | 33.00 |
| Nenufar. | 0 to 10 " 1-10 " " | 35.00 |



QUEEN LOW RANGE ALTERNATING CURRENT METERS.

These instruments are constructed on the electro-dynamometer principle, are sensitive and accurate on either direct or alternating currents.

Read directly in volts or amperes, and require no correction for change of frequency.

VOLTMETERS.

| Trade Word. | | Price. |
|-------------|---------|---------|
| Neografo. | 5 volts | \$40.00 |
| Neogamist. | 10 " | 42.00 |
| Neophyte. | 20 " | 42.00 |

AMMETERS.

| Trade Word. | | Price. |
|-------------|-------------|---------|
| Neoplastic. | .25 amperes | \$40.00 |
| Neoteric. | .50 " | 45.00 |
| Nepaulese. | .75 " | 50.00 |
| Nephralgia. | 1.00 " | 55.00 |

TEST INSTRUMENTS.

QUEEN DIRECT
READING WATTMETERS.

For direct and alternating current circuits.

These instruments are of guaranteed accuracy and will permanently maintain their calibration. The induction error is negligible, and the sensibility high enough to secure minimum temperature change. The cases are of polished mahogany, furnished with lock, key and handle.

Multipliers can be furnished for higher voltages.

| Trade Word. | Watts. | Maximum Current. | Maximum Pressure. | Price. |
|-----------------|-------------|------------------|-------------------|---------|
| Nephritic..... | 0 to 300 | 2 amps. | 150 volts | \$60.00 |
| Nerprun..... | 0 " 3,750 | 25 " | 150 " | 70.00 |
| Nerbosity..... | 0 " 15,000 | 100 " | 150 " | 80.00 |
| Nescience..... | 0 " 30,000 | 200 " | 150 " | 90.00 |
| Nespera..... | 0 " 1,200 | 2 " | 600 " | 70.00 |
| Nethermost..... | 0 " 30,000 | 50 " | 600 " | 80.00 |
| Nettle..... | 0 " 60,000 | 100 " | 600 " | 90.00 |
| Nettling..... | 0 " 120,000 | 200 " | 600 " | 95.00 |
| Nettoyage..... | 0 " 300,000 | 500 " | 600 " | 100.00 |

THE QUEEN CELL TESTER.



This instrument is particularly designed for the use of those having the care of primary or secondary batteries. It is very small, measuring but $3\frac{1}{2}$ inches in diameter and $1\frac{1}{4}$ inches deep. The instruments are strongly made throughout, having little to get out of order or become injured through accident. The system is the lightest possible on any instrument, thus adding to the sensibility and accuracy. It has no springs, and is so well balanced that the cell tester may be used either on the wall in a vertical position, or resting on a table horizontally. As the movement is dead beat readings may be taken rapidly. When conducted to a source of electromotive force, the instrument indicates by the movement of the needle both the amount and direction of the potential difference. The scale is carefully calibrated and practically

uniform. Terminal cords accompany the meter, removing the necessity for carrying about or hunting for odd pieces of wire.

A voltmeter reading to 10 volts is divided into $\frac{1}{10}$ volts, and may be read much closer. All instruments are guaranteed as to permanency and accuracy.

| Trade Word. | | Price. |
|-------------|---|---------|
| Network. | The Queen Cell tester, 0 to 10 volts, divided into $\frac{1}{10}$ volts..... | \$15.00 |
| Neurotic. | The Queen Cell tester, 0 to 5 volts, divided into $\frac{1}{10}$ volts..... | 15.00 |
| Nevadilla. | The Queen Cell tester, 5 to 0 to 5 volts, divided into $\frac{1}{10}$ volts, reading either way from a central 0 depending upon the direction of the current..... | 15.00 |

TEST INSTRUMENTS.

WESTON PORTABLE GALVANOMETER.

For direct current.



At present can be furnished in but one range, having resistance of 250 ohms, giving 1 millimeter scale deflection through 250,000 ohms.

Trade Word.

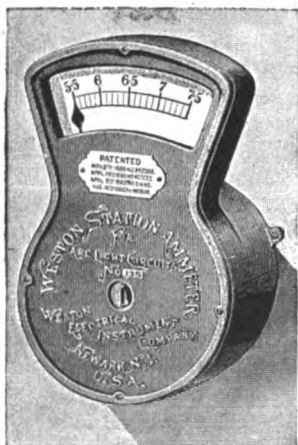
Price.

Neverita.....\$35.00

Other ranges can be quoted on application.

WESTON STATION AMMETERS.

For ac circuits.



Trade Word.

Price.

Neviscar. No. 1. Scale 5.8 to 7.8 amperes in .1 ampere divisions. 6.8 ampere mark in center.....\$20.00

Newly. No. 2. Scale 8 to 11 amperes in .1 ampere divisions. 9.5 ampere mark in center.....20.00

Newsman. No. 3. Scale 9 to 12 amperes in .1 ampere divisions. 10.5 ampere mark in center.....20.00

TEST INSTRUMENTS.

WESTON ILLUMINATED DIAL SWITCHBOARD VOLTMETER.

For direct current.



Figure 8, Style B.

Ranges and Prices of Style B or Larger Sized Voltmeters.

| Trade Word. | Scale | 0 to 125 volts in single volt divisions. | Price. |
|-------------|-------|--|----------|
| Enacting. | 0 | 150 | \$ 75.00 |
| Enactive. | 0 | 150 | 76.00 |
| Enactment. | 0 | 175 | 77.00 |
| Enactor. | 0 | 250 | 78.00 |
| Enamel. | 0 | 300 | 79.00 |
| Enameled. | 0 | 600 | 80.00 |
| Enameling. | 0 | 750 | 81.00 |

These prices are for No. 2 finish. For No. 3 finish add \$4.50.

WESTON HIGH RANGE ILLUMINATED DIAL VOLTMETERS.

For direct current.

Style B, Figure 8.

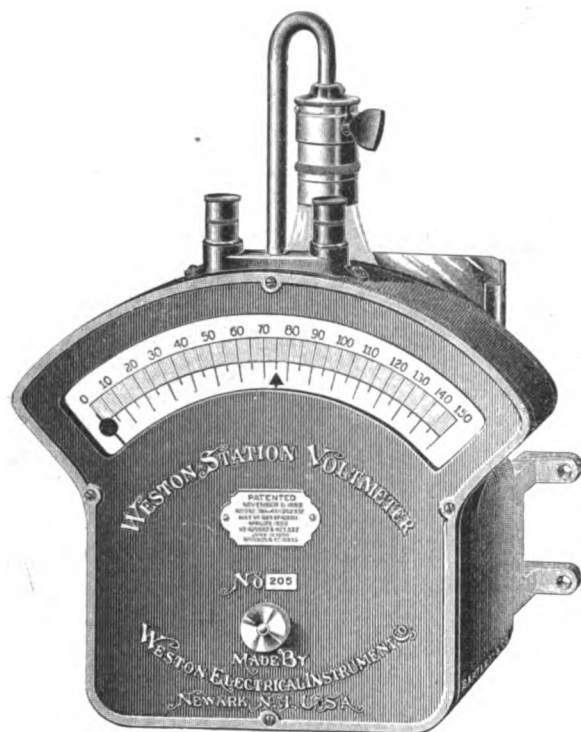
| | Price. | | Price. |
|------------------|----------|------------------|----------|
| 0 to 1000 volts. | \$100.00 | 0 to 5000 volts. | \$180.00 |
| 0 " 1500 " | 110.00 | 0 " 6000 " | 195.00 |
| 0 " 2000 " | 120.00 | 0 " 6500 " | 205.00 |
| 0 " 2500 " | 130.00 | 0 " 7000 " | 210.00 |
| 0 " 3250 " | 140.00 | 0 " 7500 " | 220.00 |
| 0 " 3500 " | 150.00 | 0 " 8000 " | 230.00 |
| 0 " 4000 " | 160.00 | 0 " 10000 " | 275.00 |
| 0 " 4500 " | 170.00 | | |

In these instruments the greater part of the resistance is contained in a separate multiplier to be fastened to the back of the switchboard.

Prices are for No. 2 finish. For No. 3 finish add \$4.50.

In ordering above instruments specify finish and style of socket desired.

TEST INSTRUMENTS.



Style A, Fig. 9.

WESTON ILLUMINATED DIAL SWITCHBOARD VOLT-METERS.

For direct current.

Finishes for Style A and B Switchboard Instruments.

No. 2 finish—Border of case, letters and all raised parts nickel plated and polished; back ground of letters and back case dead black japan.

No. 3 finish—Border of front and face of letters nickel plated and polished, back of letters dead matt nickel; all parts of case in sight nickel plated and polished.

Ranges and Prices of Style A or Small Sized Voltmeter.

| Trade Word. | Scale | 0 | to | 85 | volts | in | single | volt | divisions | Price. |
|-------------|-------|----|-----|-------|-------|--------|--------|-----------|-----------|---------|
| Enamor. | 0 | to | 85 | volts | in | single | volt | divisions | | \$55.00 |
| Enamored. | 0 | to | 100 | volts | in | single | volt | divisions | | 56.00 |
| Enamoring. | 0 | to | 125 | volts | in | single | volt | divisions | | 58.00 |
| Encage. | 0 | to | 135 | volts | in | single | volt | divisions | | 60.00 |
| Encaged. | 0 | to | 150 | volts | in | single | volt | divisions | | 62.00 |
| Encaging. | 0 | to | 250 | volts | in | two | volt | divisions | | 64.00 |
| Encamp. | 0 | to | 300 | volts | in | two | volt | divisions | | 66.00 |

These prices for No. 2 finish. For No. 3 finish add \$2.50.

WESTON ILLUMINATED DIAL POTENTIAL INDICATORS.

Style B, Fig. 8.

| Trade Word. | 90 | to | 130 | volts | 110 | volts | in | center | of | scale | Price. |
|-------------|-----|----|-----|-------|-----|-------|----|--------|----|-------|---------|
| Newsmonger. | 90 | to | 130 | volts | 110 | volts | in | center | of | scale | \$75.00 |
| Nexible. | 110 | to | 150 | volts | 125 | volts | in | center | of | scale | 76.00 |
| Niche. | 180 | to | 260 | volts | 220 | volts | in | center | of | scale | 78.00 |
| Nicknack. | 100 | to | 600 | volts | 500 | volts | in | center | of | scale | 80.00 |

Above prices are for No. 2 finish; for No. 3 finish add \$4.50.

TEST INSTRUMENTS.

WESTON'S ILLUMINATED DIAL SWITCHBOARD AMMETER.

For direct current.

Style B, Figure 8.

The scale is painted upon ground glass and back of this glass is placed an incandescent lamp with suitable mirrors for uniformly illuminating the scale.

The external appearance of this instrument is nearly the same as the station voltmeter, which we illustrate.

The instrument depends for its operation upon the fall of potential between two points of the circuit carrying the main current, and requires a difference of only about .03 volt to give the full scale deflection, at which time it is taking only .07 ampere, no matter what the total capacity of the instrument may be. Unlike our regular portable instruments, the shunt required to secure the necessary fall of potential is not included in the case, but is separate from it and is designed to be placed at the back of the switchboard.

They are finished in two styles, for a description of which see station voltmeters. The ammeters are to be used with shunts.

Price List for Combined Instruments and Shunts.

| Trade Word. | Amperes. | Price of Instrument. | Price of Shunt. | Instrument, With Shunt. | Trade Word. | Amperes. | Price of Instrument. | Price of Shunt. | Instrument, With Shunt. |
|----------------|----------|----------------------|-----------------|-------------------------|----------------|----------|----------------------|-----------------|-------------------------|
| Encumbrance... | 200 | \$76.50 | \$ 3.00 | \$79.50 | Endlessness... | 2500 | \$76.50 | \$20.25 | \$96.75 |
| Traducing..... | 250 | 76.50 | 3.00 | 79.50 | Endow..... | 3000 | 76.50 | 22.50 | 99.00 |
| Endamage..... | 300 | 76.50 | 3.25 | 79.75 | Endower..... | 3500 | 76.50 | 25.50 | 102.00 |
| Endamagement. | 400 | 76.50 | 3.50 | 80.00 | Endowing.... | 4000 | 76.50 | 30.00 | 106.50 |
| Endanger..... | 500 | 76.50 | 4.50 | 81.00 | Endowment... | 4500 | 76.50 | 37.50 | 114.00 |
| Endear..... | 600 | 76.50 | 5.50 | 82.00 | Endurance.... | 5000 | 76.50 | 45.00 | 121.50 |
| Endearing..... | 750 | 76.50 | 6.50 | 83.00 | Nickname.... | 6000 | 76.50 | 52.50 | 129.00 |
| Endearment... | 1000 | 76.50 | 7.50 | 84.00 | Nicoline..... | 7000 | 76.50 | 60.00 | 136.50 |
| Endeavor..... | 1200 | 76.50 | 8.50 | 85.00 | Nictation..... | 8000 | 76.50 | 75.00 | 151.50 |
| Endeavoring... | 1500 | 76.50 | 14.25 | 90.75 | Nidificat..... | 10000 | 76.50 | 90.00 | 166.50 |
| Endlessly..... | 2000 | 76.50 | 18.75 | 95.25 | ..... | ..... | ..... | ..... | ..... |

Above prices are for No. 2 finish. For No. 3 finish add \$4.50.

The above illuminated dial ammeter can be furnished with 0 in the center and reading an equal number of amperes on each side, or with low reading to left and high reading to right of 0 for same price as direct reading ammeter of similar range.

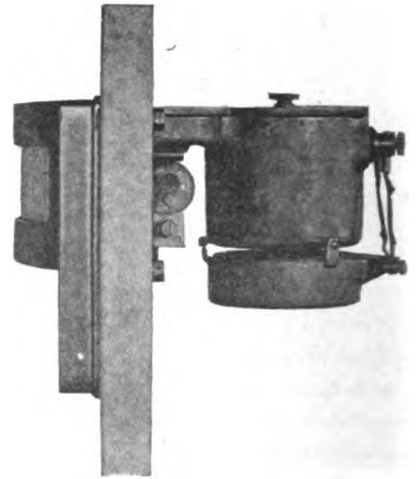
When ordering illuminated dial instruments state style of finish and socket desired.

TEST INSTRUMENTS.

WAGNER ILLUMINATED DIAL SWITCHBOARD INSTRUMENTS.



Front view of ammeter.



Side view of voltmeter.

A switchboard instrument that is accurate at all times and an absolutely dead beat action; the working mechanism is contained in cast box which is on the rear of instrument as noted in cut of voltmeter above and floats in a light colorless oil, a couple of small aluminum vanes serving to afford a dashpot action by which needles are held stationary against any passing, instantaneous disturbance, and at once brought to rest, the *dead beat* action has been secured *without sacrifice to the least extent of sensitiveness*.

The scale, which is of porcelain, is illuminated by two small lamps which give a uniform illumination. Each instrument scale is separately calibrated.

The Voltmeter.

In the voltmeter movement use is made of the dynamometer principle. The scale, being one of 67 degrees arc, is almost absolutely uniform throughout the range. Scales can be plotted to any value desired, from zero to the maximum called for, or from any specific point to the maximum. The maximum pressure of operation is 150 volts. Above that point step-down transformers are furnished. The series resistance coil is carried in small, self-ventilating cup, mounted immediately below the body, as shown.

The Wattmeter.

In the wattmeter the dynamometer principle is again employed. The pressure coil is connected to the 100 volt ends of a step-down transformer. The series coil, for circuits of 25 amperes, takes the entire line current. Above that amount a series transformer identical with that used for ammeters is employed. These wattmeters are of uniform scale, sensitive, dead beat, and absolutely reliable at any and all loads.

The Ammeter.

This is identical in general appearance with the wattmeter and voltmeter but the principle employed is somewhat different. In instruments up to 100 amperes capacity, the entire current of the circuit is sent through the instrument coil. Above 100 amperes use is made of a series transformer, the primary of which is cut in on the bus-bar.

TEST INSTRUMENTS.

WAGNER ILLUMINATED DIAL SWITCHBOARD INSTRUMENTS.

For alternating currents.

AMMETERS.

| Trade Word. | Scale. | Price, including Series Transformer. | Trade Word. | Scale. | Price, including Series Transformer. |
|-------------|-----------------|--|-------------|------------------|--|
| Nonsense. | 0 to 10 amperes | \$45.00 | Notoriety. | 0 to 400 amperes | \$70.00 |
| Nonsuit. | 0 to 15 " | 45.00 | Notorious. | 0 to 500 " | 75.00 |
| Nonsuiting. | 0 to 25 " | 45.00 | Nouement. | 0 to 600 " | 75.00 |
| Nonsuch. | 0 to 50 " | 45.00 | Nourriston. | 0 to 700 " | 75.00 |
| Nontronite. | 0 to 75 " | 45.00 | Nourriture. | 0 to 800 " | 75.00 |
| Nook. | 0 to 100 " | 55.00 | Nouveaute. | 0 to 900 " | 75.00 |
| Noonstead. | 0 to 150 " | 55.00 | Novaculite. | 0 to 1000 " | 80.00 |
| Noontide. | 0 to 200 " | 60.00 | Novator. | 0 to 1200 " | 80.00 |
| Nopalera. | 0 to 250 " | 60.00 | Novelador. | 0 to 1500 " | 85.00 |
| Norabuena | 0 to 300 " | 65.00 | Novedad. | 0 to 2000 " | 90.00 |

VOLTMETERS.

| Trade Word. | Scale. | Price. |
|-------------|---------------|---------|
| Noramala. | 0 to 60 volts | \$40.00 |
| Northerner. | 0 to 120 " | 45.00 |
| Northman. | 0 to 150 " | 50.00 |

WATTMETERS.

| Trade Word. | Scale. | Price. | Trade Word. | Scale. | Price. |
|-------------|------------------|---------|-------------|-------------------|----------|
| Northward. | 0 to 100 watts | \$65.00 | Novelism. | 0 to 50 kilowatts | \$ 95.00 |
| Noseless. | 0 to 200 " | 65.00 | Novellette. | 0 to 75 " | 95.00 |
| Nosologist. | 0 to 300 " | 65.00 | Novelty. | 0 to 100 " | 100.00 |
| Nostalgia. | 0 to 400 " | 65.00 | Novenary. | 0 to 200 " | 110.00 |
| Notability. | 0 to 500 " | 65.00 | Novendial. | 0 to 300 " | 110.00 |
| Notador. | 0 to 750 " | 65.00 | Novillers. | 0 to 500 " | 120.00 |
| Tabby. | 0 to 1000 " | 65.00 | Novilunar. | 0 to 750 " | 125.00 |
| Notched. | 0 to 2 kilowatts | 65.00 | Nowise. | 0 to 1000 " | 130.00 |
| Notebook. | 0 to 3 " | 70.00 | Noyeau. | 0 to 1200 " | 135.00 |
| Notedly. | 0 to 5 " | 70.00 | Nozzle. | 0 to 1500 " | 140.00 |
| Noteworthy. | 0 to 10 " | 75.00 | Nubarron. | 0 to 2000 " | 150.00 |
| Noticeable. | 0 to 25 " | 75.00 | | | |

Prices on special instruments quoted on application. Instruments for higher pressure furnished with transformers, additional cost of transformers appearing below.

Transformers for Use with Voltmeters and Wattmeters.

| Trade Word. | Price. | Trade Word. | Price. |
|-------------|---------------------------|-------------|---------------------------|
| Notifier. | 1000 to 100 volts \$20.00 | Nubecita. | 3000 to 100 volts \$30.00 |
| Notionist. | 2000 to 100 " 30.00 | Nubiferous. | 5000 to 100 " 42.00 |

Prices on other scales, etc., quoted on application. These prices include illuminating lamps in each case, oil, and series transformers. For pressure reduction the transformer constitutes an extra piece of apparatus, as listed above.

TEST INSTRUMENTS.

QUEEN-WIRT ILLUMINATED DIAL SWITCHBOARD
INSTRUMENTS.

These instruments have long scales with gradations widely spaced; the scale plate is translucent and illuminated from back with two cylinder lamps placed lengthwise of the scale, giving uniform distribution of light.

The case is highly ornamented, the front being of bronze, the case black enameled.

In ordering alternating current instruments give frequency of circuit.

VOLTMETERS.

| Direct Current. | | | | Alternating Current. | | | |
|-----------------|----------------|-------------------------------|---------|----------------------|--|--|---------|
| Trade Word. | | | Price. | Trade Word. | | | Price. |
| Nidify. | 2 to 15 volts, | $\frac{1}{4}$ volt divisions. | \$70.00 | Noctuary. | | | \$75.00 |
| Niebla. | 3 " 25 " " | $\frac{1}{4}$ " " | 70.00 | Nocturnal. | | | 75.00 |
| Nidulation. | 8 " 75 " " | 1 " " | 72.00 | Noctivago. | | | 77.00 |
| Nigauder. | 90 " 130 " " | 1 " " | 72.00 | Nocument. | | | 77.00 |
| Nigglar. | 15 " 150 " " | 2 " " | 72.00 | Nodation. | | | 77.00 |
| Nightcap. | 30 " 300 " " | 4 " " | 77.00 | Nodder. | | | 82.00 |
| Nightfall. | 60 " 600 " " | 8 " " | 79.00 | Nodding. | | | 84.00 |

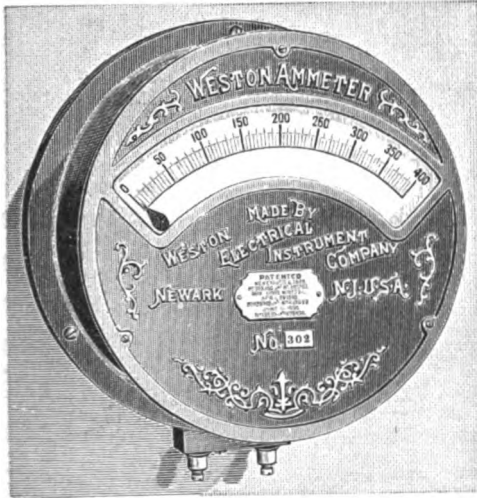
Multipliers to Increase Range of 600 Volt Instruments to

| Direct Current. | | | | Alternating Current | | | |
|-----------------|------------------|--|---------|---------------------|--|--|---------|
| Trade Word. | | | Price. | Trade Word. | | | Price. |
| Nighthag. | 1200 volts, add. | | \$26.00 | Nodosity. | | | \$31.00 |
| Nightlight. | 1500 " " | | 30.00 | Nodriz. | | | 35.00 |
| Nightshade. | 1800 " " | | 35.00 | Nodular. | | | 40.00 |
| Nighttime. | 2400 " " | | 47.00 | Nogueral. | | | 52.00 |
| Nigrescent. | 3000 " " | | 52.00 | Noirceur. | | | 57.00 |

AMMETERS.

| Direct Current. | | | | Alternating Current | | | |
|-----------------|------------------|-------------|----------|---------------------|--|--|----------|
| Trade Word. | | | Price. | Trade Word. | | | Price. |
| Nihilty. | 10 to 100 amps., | 1 amp. div. | \$ 76.00 | Nomadic. | | | \$ 81.00 |
| Nilometre. | 12 " 125 " " | 1 " " | 77.00 | Nombrador. | | | 82.00 |
| Nimble. | 15 " 150 " " | 2 " " | 77.00 | Nombrant. | | | 82.00 |
| Nimbleness. | 20 " 200 " " | 2 " " | 78.00 | Nomografia. | | | 83.00 |
| Niniety. | 25 " 250 " " | 2 " " | 78.00 | Nomothetic. | | | 83.00 |
| Ninada. | 30 " 300 " " | 4 " " | 78.00 | Nonagesime. | | | 83.00 |
| Ninepins. | 40 " 400 " " | 4 " " | 79.00 | Nonagon. | | | 84.00 |
| Ninero. | 50 " 500 " " | 5 " " | 79.00 | Nonce. | | | 84.00 |
| Ninny. | 60 " 600 " " | 8 " " | 80.00 | Nonchalant. | | | 85.00 |
| Nippingly. | 80 " 800 " " | 8 " " | 80.00 | Nonconform. | | | 85.00 |
| Nitouche. | 100 " 1000 " " | 10 " " | 82.00 | Nonentity. | | | 87.00 |
| Nivelar. | 150 " 1500 " " | 15 " " | 83.00 | Nonjurant. | | | 88.00 |
| Nobleman. | 200 " 2000 " " | 20 " " | 88.00 | Nonpareil. | | | 93.00 |
| Nobleness. | 300 " 3000 " " | 30 " " | 95.00 | Nonplus | | | 100.00 |
| Noctidial. | 500 " 5000 " " | 50 " " | 110.00 | Nonplussed. | | | 110.00 |

TEST INSTRUMENTS.



Type F, Fig 10.

WESTON ROUND PATTERN
SWITCHBOARD
AMMETERS.

For direct current.

These instruments are desirable when reliable instruments of guaranteed accuracy are required.

The ammeters are used with shunts, which for 75 amperes and under are self-contained in the instrument, and separate for other ranges.

DIALS NOT ILLUMINATED.

| Trade Word. | | | | | Price Including Shunt. |
|-------------|-----------|-----------------------|---|---|------------------------------|
| Nominal. | 1 ampere, | 0.01 ampere divisions | | | \$25.00 |
| Nominate. | 5 " | 0.05 " | " | " | 25.00 |
| Nominated. | 10 " | 0.1 " | " | " | 25.00 |
| Nominating. | 15 " | 0.1 " | " | " | 25.00 |
| Nomination. | 25 " | 0.5 " | " | " | 25.00 |
| Nominative. | 50 " | 0.5 " | " | " | 25.50 |
| Noodle. | 75 " | 0.5 " | " | " | 26.00 |
| Noonday. | 100 " | 1.0 " | " | " | 26.50 |
| Nooning. | 150 " | 1.0 " | " | " | 27.00 |
| Noose. | 200 " | 2.0 " | " | " | 28.00 |
| Normal. | 250 " | 2.0 " | " | " | 28.25 |
| Norman. | 300 " | 2.0 " | " | " | 28.25 |
| Nose. | 400 " | 5.0 " | " | " | 28.50 |
| Nosegay. | 500 " | 5.0 " | " | " | 29.50 |
| Nostril. | 600 " | 5.0 " | " | " | 30.50 |
| Nostrum. | 750 " | 5.0 " | " | " | 31.50 |
| Notable. | 1000 " | 10.0 " | " | " | 32.50 |
| Notorial. | 1200 " | 10.0 " | " | " | 33.50 |
| Nubilate. | 1500 " | 10.0 " | " | " | 39.25 |
| Nubasided. | 2000 " | 20.0 " | " | " | 43.75 |
| Nucleiform. | 2500 " | 20.0 " | " | " | 45.25 |

Above prices for No. 2 finish. For No. 3 finish add \$2.00.

The round pattern ammeters can be furnished with 0 in the center and reading an equal number of amperes on each side, or with low reading to left and high reading to right of 0 for same price as direct reading ammeter of similar range.

TEST INSTRUMENTS.

WESTON ROUND PATTERN SWITCHBOARD VOLTMETER.

For direct current, style F, figure 10.

| Trade Word. | Range. | Divisions. | Price. |
|-------------|---------------|------------|---------|
| Noggin. | 0 to 3 volts. | .02 volt | \$25.00 |
| Nogging. | 0 to 6 " | .05 " | 25.00 |
| Noise. | 0 to 15 " | .1 " | 25.00 |
| Noiseful. | 0 to 25 " | .2 " | 26.00 |
| Noiseless. | 0 to 50 " | .5 " | 26.50 |
| Noisily. | 0 to 75 " | .5 " | 27.25 |
| Noisome. | 0 to 125 " | 1. " | 28.25 |
| Noisy. | 0 to 150 " | 1. " | 29.50 |
| Nudamente. | 0 to 250 " | 2. " | 31.50 |
| Nomad. | 0 to 300 " | 2. " | 32.50 |
| Nomadie. | 0 to 600 " | 5. " | 35.00 |
| Nomadize. | 0 to 750 " | 5. " | 37.00 |

Above prices are for No. 2 finish. For No. 3 finish add \$2.00.

SHUNT TERMINALS FOR ILLUMINATED DIAL AND ROUND PATTERN AMMETERS.

For ranges up to 750 amperes we can furnish terminals of high conductivity red metal, drilled for cable connections.

| Trade Word. | Range. | Dia. of Hole for Cable. | Price. |
|-------------|--------------|-------------------------|--------|
| Nuegados. | 100 amperes, | $\frac{1}{32}$ | \$0.40 |
| Nuestramo. | 150 " | $\frac{1}{32}$ | .40 |
| Nuevamente | 200 " | $\frac{1}{32}$ | .45 |
| Nugacity. | 250 " | $\frac{1}{32}$ | .50 |
| Nugatory. | 300 " | $\frac{1}{32}$ | .60 |
| Nugget. | 400 " | $\frac{1}{32}$ | .70 |
| Nuisance. | 500 " | $\frac{1}{32}$ | .80 |
| Nuitamment. | 600 " | $\frac{1}{32}$ | .90 |
| Nullement. | 750 " | $\frac{1}{32}$ | 1.00 |



TEST INSTRUMENTS.

QUEEN-WIRT SWITCHBOARD METERS.

Round pattern.

This type of meter is generally used on feeder circuits in railway and central stations and for isolated plants. It is of the same accuracy and workmanship as the illuminated dial pattern. The front is of bronze, the base black enameled.

It is dead-beat and sensitive, and may be connected in circuit in either direction, regardless of polarity, without introducing an error. All instruments are made with back terminals. Flanges will be removed from the cases if it is desired to mount the meters as flush type instruments.

VOLTMETERS.

| Trade Word. | DIRECT CURRENT. | | | ALTERNATING CURRENT. | |
|-----------------|-----------------|-----------------|---------|----------------------|---------|
| | Volts. | Volt Divisions. | Price. | Trade word. | Price. |
| Nullified..... | 2 to 15 | $\frac{1}{4}$ | \$24.00 | Numerosity..... | \$26.00 |
| Nullipore..... | 3 " 25 | $\frac{1}{4}$ | 24.00 | Numerotage..... | 26.00 |
| Numberer..... | 8 " 75 | 1 | 24.00 | Numisinatic..... | 26.00 |
| Numberless..... | 80 " 130 | 1 | 24.00 | Nummulary..... | 26.00 |
| Numeration..... | 15 " 150 | 2 | 24.00 | Nummulite..... | 26.00 |
| Numerist..... | 30 " 300 | 4 | 26.00 | Nunciate..... | 28.00 |
| Numerique..... | 60 " 600 | 8 | 28.00 | Nursling..... | 30.00 |

MULTIPLIERS.

| Trade Word. | DIRECT CURRENT. | | ALTERNATING CURRENT. | |
|----------------|--|---------|----------------------|---------|
| | To Increase Range of 300-Volt Instruments to | Price. | Trade Word. | Price. |
| Nutation..... | 1200 volts, add..... | \$22.00 | Nutrifical..... | \$28.00 |
| Nutbrown..... | 1500 " "..... | 30.00 | Nutshell..... | 35.00 |
| Nutracker..... | 1800 " "..... | 39.00 | Nymphlike..... | 44.00 |
| Nuthatch..... | 2400 " "..... | 50.00 | Tadpole..... | 56.00 |
| Nutpecker..... | 3000 " "..... | 60.00 | Taffeta..... | 66.00 |

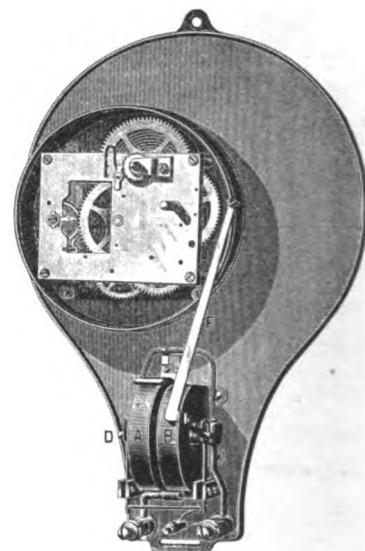
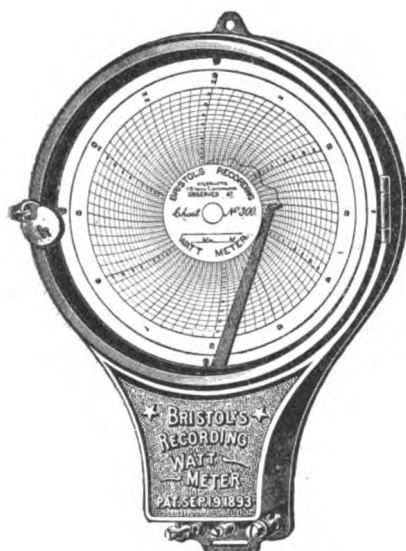
AMMETERS.

| Trade Word. | DIRECT CURRENT. | | | ALTERNATING CURRENT. | |
|-----------------|-----------------|-------------------|---------|----------------------|---------|
| | Amperes. | Ampere Divisions. | Price. | Trade Word. | Price. |
| Tagrag..... | 1 to 10 | $\frac{1}{8}$ | \$22.00 | Tamable..... | \$24.00 |
| Tagtail..... | 2 " 15 | $\frac{1}{4}$ | 22.00 | Tamarind..... | 24.00 |
| Tailor..... | 3 " 30 | $\frac{1}{4}$ | 22.00 | Tamarisk..... | 24.00 |
| Tailoress..... | 5 " 50 | $\frac{1}{2}$ | 22.00 | Tambour..... | 24.00 |
| Tailoring..... | 8 " 75 | 1 | 22.00 | Tambourine..... | 24.00 |
| Taintless..... | 10 " 100 | 1 | 22.00 | Tameless..... | 24.00 |
| Tainture..... | 12 " 125 | 1 | 24.00 | Taming..... | 26.00 |
| Talebearer..... | 15 " 150 | 2 | 24.00 | Tampering..... | 26.00 |
| Talented..... | 20 " 200 | 2 | 26.00 | Tandem..... | 28.00 |
| Talisman..... | 25 " 250 | 2 | 26.00 | Tangent..... | 28.00 |
| Talkative..... | 30 " 300 | 4 | 26.00 | Tangential..... | 28.00 |
| Taiker..... | 40 " 400 | 4 | 28.00 | Tangible..... | 30.00 |
| Tallness..... | 50 " 500 | 5 | 28.00 | Tangle..... | 30.00 |
| Tallowish..... | 60 " 600 | 8 | 28.00 | Tank..... | 30.00 |
| Talmud..... | 80 " 800 | 8 | 28.00 | Tankard..... | 30.00 |
| Talmudical..... | 100 " 1000 | 10 | 28.00 | Tanner..... | 30.00 |

In ordering alternating current instruments give frequency of circuit.

TEST INSTRUMENTS.

BRISTOL RECORDING THERMOMETERS, PRESSURE GAUGES, VOLTMETERS, AMMETERS AND WATTMETERS.



BRISTOL RECORDING THERMOMETERS.

| Trade Word. | No. | | Price. |
|-------------|------|--|---------|
| Tanpit. | 621. | For atmospheric temperatures. Graduated to 2° Fahr. Range—20° to 110° One week chart..... | \$65 00 |

This thermometer is constructed so that the recording part may be located within doors and 20 feet distant from the point at which the temperature is to be measured.

BRISTOL RECORDING STEAM AND WATER GAUGES.

| Trade Word. | No. | Range. | Working Pressure. | Hour Chart. | Price. |
|-------------|-----|--------------|-------------------|-------------|---------|
| Tansy. | 3 | 0 to 90 lbs. | To 60 lbs. | 24 | \$50.00 |
| Tantalize. | 2 | 0 to 180 " | " 120 " | 24 | 50.00 |
| Tantamount. | 35 | 0 to 200 " | " 150 " | 24 | 50.00 |
| Tantivy. | 45 | 0 to 200 " | " 150 " | 1 | 50.00 |

Prices on above gauges include ink and one hundred daily or three dozen weekly charts.

TEST INSTRUMENTS.

BRISTOL RECORDING VOLTMETERS.

For direct current.

| Trade Word. | No. | Total Range. | Working Range. | Chart. | Price. |
|-------------------|-----|---------------|----------------|----------|---------|
| Tantrums | 170 | 0 to 6 volts. | to 5 volts. | 24 hour. | \$60.00 |
| Taper | 104 | 0 " 26 " | " 25 " | 24 " | 60.00 |
| Novice | 103 | 0 " 60 " | " 55 " | 24 " | 60.00 |
| Noxious | 105 | 0 " 130 " | " 120 " | 24 " | 60.00 |
| Noxiously | 102 | 0 " 140 " | " 130 " | 24 " | 60.00 |
| Tapering | 106 | 0 " 280 " | " 260 " | 24 " | 60.00 |
| Tapestried | 107 | 0 " 300 " | " 275 " | 12 " | 60 00 |
| Tapestry | 108 | 0 " 600 " | " 550 " | 24 " | 60.00 |
| Noxiousness | 109 | 0 " 600 " | " 550 " | 12 " | 60.00 |
| Tapster | 111 | 0 " 650 " | " 600 " | 24 " | 60.00 |

Prices on higher ranges furnished on application.

BRISTOL RECORDING VOLTMETER.

For alternating current.

| Trade Word. | No. | Total Range. | Working Range. | Chart. | Price. |
|-----------------|-----|----------------|----------------|----------|---------|
| Tarantula | 205 | 0 to 65 volts. | to 60 volts. | 24 hour. | \$60.00 |
| Nudge | 204 | 0 " 120 " | " 110 " | 24 " | 60.00 |
| Nudity | 203 | 0 " 130 " | " 120 " | 24 " | 60.00 |
| Tardiness | 206 | 0 " 160 " | " 150 " | 24 " | 60.00 |
| Tardy | 207 | 0 " 450 " | " 430 " | 24 " | 60.00 |

Prices on above gauges include ink and one hundred charts with each instrument.

TEST INSTRUMENTS.

BRISTOL RECORDING AMMETERS.

For direct current.

| Trade Word. | No. | Total Range. | Working Range. | Chart. | Price. |
|-----------------|-----|--------------|----------------|--------|---------|
| Target..... | 431 | 0 to 7 amps. | to 6 amps. | 24 hr. | \$60.00 |
| Tarnish..... | 441 | 0 " 15 " | " 12 " | 24 " | 60.00 |
| Tarnishing..... | 451 | 0 " 30 " | " 25 " | 24 " | 60.00 |
| Tartan..... | 461 | 0 " 60 " | " 50 " | 24 " | 60.00 |
| Tartareous..... | 471 | 0 " 180 " | " 165 " | 24 " | 60.00 |
| Tartarian..... | 475 | 0 " 300 " | " 270 " | 24 " | 80.00 |
| Tartlet..... | 476 | 0 " 300 " | " 270 " | 12 " | 80.00 |
| Tartly..... | 477 | 0 " 300 " | " 270 " | 1 " | 80.00 |
| Tartness..... | 481 | 0 " 600 " | " 550 " | 24 " | 80.00 |
| Tarts..... | 491 | 0 " 1200 " | " 1100 " | 24 " | 80.00 |
| Taskmaster..... | 495 | 0 " 1200 " | " 1100 " | 1 " | 80.00 |
| Tasselled..... | 493 | 0 " 2400 " | " 2200 " | 24 " | 90.00 |
| Tastable..... | 494 | 0 " 3600 " | " 3300 " | 24 " | 100.00 |

BRISTOL RECORDING AMMETERS.

For alternating current.

| Trade Word. | No. | Total Range. | Working Range. | Alternations. | Chart. | Price. |
|-----------------|-----|---------------|----------------|---------------|--------|---------|
| Taste..... | 420 | 0 to 10 amps. | to 8 amps. | 8400 | 24 hr. | \$60.00 |
| Tasteless..... | 425 | 0 " 25 " | " 20 " | 15000 | 24 " | 60.00 |
| Tastefully..... | 424 | 0 " 60 " | " 50 " | 15000 | 24 " | 60.00 |
| Tatling..... | 421 | 0 " 100 " | " 80 " | 15000 | 24 " | 60.00 |
| Tatter..... | 423 | 0 " 150 " | " 130 " | 7200 | 24 " | 60.00 |

BRISTOL RECORDING WATTMETERS.

For direct current.

| Trade Word. | No. | Total Range. | Working Range. | Chart. | Price. | |
|----------------|-----|--------------|----------------|--------|------------|------------|
| | | | | | 115 Volts. | 500 Volts. |
| Tattooed..... | 310 | 0 to 6 kw. | to 5 kw. | 24 hr. | \$70.00 | \$70.00 |
| Tattooing..... | 302 | 0 " 6 " | " 5 " | 12 " | 70.00 | 70.00 |
| Taught..... | 314 | 0 " 15 " | " 12 " | 12 " | 70.00 | 70.00 |
| Taunted..... | 311 | 0 " 18 " | " 15 " | 24 " | 85.00 | 70.00 |
| Taunting..... | 312 | 0 " 30 " | " 25 " | 24 " | 85.00 | 70.00 |
| Tautology..... | 313 | 0 " 90 " | " 75 " | 24 " | 85.00 | 85.00 |
| Tavern..... | 303 | 0 " 180 " | " 150 " | 12 " | 95.00 | 85.00 |

Prices on above instruments include ink and one hundred charts with each instrument.

TEST INSTRUMENTS.

BRISTOL RECORDING WATTMETERS.

For direct current are circuits.

| Trade Word. | No. | Total Range. | Working Range. | Alternations. | Chart. | Price. |
|------------------------------------|------|-------------------------|-----------------------|----------------|--------|---------|
| Tawdrilly. | 304. | Total range to 30 K. W. | Maximum voltage 3000. | 24 hour chart. | .... | \$95.00 |
| Special ranges furnished to order. | | | | | | |

BRISTOL RECORDING WATTMETERS.

For alternating current.

| Trade Word. | No. | Total Range. | Working Range. | Alternations. | Chart. | Price. |
|-------------|------|---------------|----------------|---------------|-----------|--------------|
| Tawdriness. | 380. | 0 to 12 K. W. | To 10 K. W. | 16000 | 24 hours. |\$70.00 |

Prices on above instruments include ink and one hundred charts with each instrument.

Additional Attachments for Bristol Recording Instruments.

| Trade Word | | Price. |
|------------|---|--------------|
| Tawdry. | Damping device. |\$ 6.00 |
| Taxable. | Aluminum case (reducing weight one-half) | 10.00 |
| Taxation. | Electric "High or Low" alarm. | 12.00 |
| Taxidermy. | Special charts made to order. | 20.00 |
| Taxonomy. | Additional charts, regular size per hundred | 1.00 |

The damping device above listed is very desirable for ampere meters attached to railway circuits or other varying loads as the tendency to excessive vibration of the pointer is obviated.

TEST INSTRUMENTS.

THE "ACME" PORTABLE TESTING SET.



T460.

THE GALVANOMETER.—This is of the well known D'Arsonval type. It is not disturbed by external magnetic fields, and requires no leveling or adjusting. These features particularly recommend the set for testing about dynamos or moving machinery. The sensibility of the galvanometer is greater than has ever before been secured in this style of instrument—namely, one-half megohm.

THE BATTERY.—This consists of six chloride of silver cells, one or more of which can be used as desired. They maintain a nearly constant E. M. F., and are good until entirely exhausted. These cells will last a number of months where the set is in daily use, and when entirely used up can be renewed at a very small expense. To remove the cell-block, unscrew the flat-head screw in bottom of case and lift the small rubber top out by the brass tips.

THE KEYS.—The two keys are entirely exposed to view, and conveniently placed at the front of the instrument. This permits one to examine the contacts and clean them when necessary. The left hand key is a single contact key in the battery circuit. The right hand one is a short circuit key; when pressed down it closes the galvanometer circuit, and when released it short-circuits the galvanometer, bringing the needle immediately to rest. Using two single keys in place of one double-contact key enables one to measure the resistance of inductive circuits more readily.

THE CASE.—A strong case, with handle and lock and key, protects the instrument and secures it against meddlers. The case is of finely polished mahogany and very small, measuring $9 \times 5\frac{1}{2} \times 5$ inches.

It consists of a Wheatstone's bridge, galvanometer, battery and keys—all contained in a mahogany carrying case.

THE WHEATSTONE BRIDGE.—The coils are wound of platinoid wire, carefully seasoned after winding to prevent gradual changing of the resistance with time. The rheostat coils are adjusted to an accuracy of $\frac{1}{3}$ of 1 per cent.; the bridge arm coils to an accuracy of $\frac{1}{10}$ of 1 per cent. When so ordered, the coils will be adjusted to double this accuracy. The rheostat coils are sixteen in number, their combined resistance being 11,110 ohms. In each bridge arm there are three coils of 1, 10 and 100 ohms, and 10, 100 and 1000 ohms respectively. Our special commutator admits of a ratio of 1 to 1000 on either bridge arm. The possible range of the set therefore, is from .001 to 11,110,000 ohms, though for resistances above a few hundred thousand ohms additional battery power should be employed.

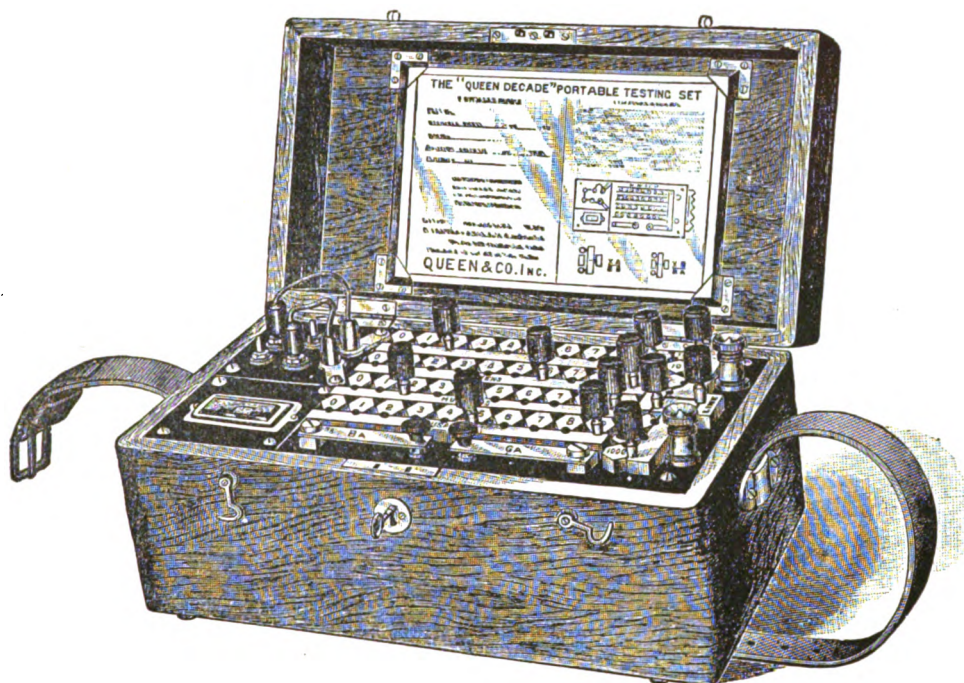
The blocks and plugs are finished to a standard taper, thereby insuring exact fit in whatever order the plugs may be replaced.

PRICE LIST.

| | | |
|-------------|--------|--|
| Trade Word. | | |
| Teachable. | T460. | Queen Acme portable testing set, style D.....\$100 00 |
| Teacher. | T460a. | Queen Acme portable testing set, special form for insulation measurements 130.00 |
| Teamster. | T460b. | Queen Acme special; same as T460a, but with 50 chloride of silver cells in same case. 200.00 |
| Teapot. | T461. | Sole leather carrying case, for T460 or 460a. 6.00 |
| Tearful. | T461b. | Sole leather carrying case, for T460b 9.00 |
| Teasing. | T462. | Flexible contact clutches..... 5.00 |
| Technical. | T463. | Folding tripod for street work 7.50 |
| | | When any of the above sets are ordered adjusted to double the accuracy, add..... 15.00 |

TEST INSTRUMENTS.

QUEEN "DECADE" PORTABLE TESTING SET.



T464.

This set is somewhat larger than the "Acme" form, having outside dimensions $12 \times 6\frac{1}{2} \times 5\frac{1}{2}$ inches, and weighing 15 pounds. The battery of silver chloride cells and the D'Arsonval galvanometer are similar to those used in the "Acme" set. The arrangement of the rheostat and of the bridge coils, however, is different. The coils of the rheostat are placed in rows of nine, all in the same row being of equal value, and the "plugging in" method is used so that one plug only is required in each row. The number on each block indicates the resistance in circuit when a plug is placed in a corresponding hole. There is one row each of 1, 10, 100 and 1,000 ohm coils, making the total resistance of the rheostat 9999 ohms.

The reversing switch is arranged as in the "Acme" set, but the bridge coils are connected so that one plug only is required in each arm, this being placed adjoining the block which it is desired to use.

Platinoid wire is used, and we guarantee the coils adjusted to $\frac{1}{4}$ of 1 per cent. accuracy.

Separate keys are provided for the battery and galvanometer circuit.

Trade Word.

Price.

| | | | |
|-----------|-------|--|----------|
| Tedious. | T464. | Queen Decade portable testing set..... | \$125.00 |
| Tedium. | T465. | Queen Decade portable testing set, without galvanometer and battery..... | 100.00 |
| Teemful. | | Renewing cell blocks..... | 1.80 |
| Teething. | T461. | Sole leather carrying case..... | 5.00 |
| Teetotum. | T462. | Flexible contact clutches for heavy conductors..... | 5.00 |
| Tegument. | T463. | Folding tripod for street work..... | 7.50 |

TEST INSTRUMENTS.



PORTABLE TESTING SET.

Adapted for all kinds of testing for resistance faults, grounds, etc.; is very light and compact; is provided with 16 coils, having a total resistance of 11110; bridge coils are 1-10-100 on one side and 10-100-1000 on the other, reversing arms are provided allowing of any ratio being obtained in either direction and giving a range of from .001 to 11 megohms; coils are of platinoid wire and adjusted to $\frac{1}{10}$ per cent. in the arms and $\frac{1}{2}$ per cent. in the resistance coils; the galvanometer is of the D'Arsonval type, unaffected by adjacent magnetic fields or currents and may be used in

any position; the battery consists of six chloride of silver cells, mounted in a special containing box fitting into the main cell and can be easily taken out when renewal of cells is necessary. The set is contained in a polished cherry case with handle and lock and key. Dimensions $9\frac{3}{4} \times 5\frac{1}{2} \times 4$ inches high, weight 7 pounds.

| Trade Word. | | Price. |
|-------------|----------------------------|---------|
| Telescope. | Outfit complete..... | \$75.00 |
| Tellurate. | Leather carrying case..... | 4.00 |

WHITNEY PORTABLE TESTING SET.

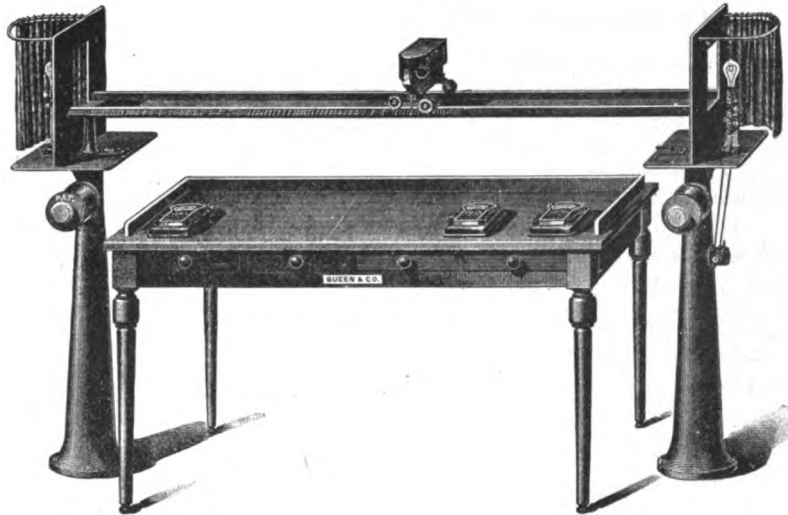
This instrument has been designed to meet the demand of reliability, simplicity and moderate cost; its accuracy is guaranteed to be within $\frac{1}{2}$ of one per cent. making it available for all ordinary measurements. It is furnished in three ranges as noted below, each with or without battery as may be desired.



| Trade Word. | Number. | Price. |
|-------------|---|---------|
| Temerity. | 2405. Range .1 to 211000 ohms without battery..... | \$25.00 |
| Temper. | 2410. Range .1 to 211000 ohms with six cells, dry battery..... | 35.00 |
| Temperance. | 2415. Range .1 ohm to one megohm without battery..... | 30.00 |
| Temperate. | 2420. Range .1 ohm to one megohm with six cells dry battery.... | 40.00 |
| Tempering. | 2425. Range .1 ohm to 5 megohms without battery..... | 40.00 |
| Templar. | 2430. Range .1 ohm to 5 megohms with six cells dry battery | 50.00 |

TEST INSTRUMENTS.

QUEEN STANDARD PHOTOMETER.



Briefly described. "The Queen Standard Photometer" consists of two cast-iron pedestals supporting a wrought-iron track, upon which rolls the photometer carriage. The photometer carriage is of the well-known Lummer-Brodhun type, the most accurate and sensitive yet devised. It is easily rolled to any position along the track, and by means of the milled-head attachment readily set to a balance. It is impossible to accidentally dislodge it from its position. When preferred, a Bunsen screen may be substituted, or both may be secured, fitting the same truck.

Fastened to the side of the track is a graduating bar reading directly in candle-power. A stage on the left-hand pedestal carries a metal screen and an adjustable support for the standard lamp.

Experience has demonstrated that properly treated incandescent lamps, if used with due precautions, will retain a constant candle-power for an extended period. Their great superiority over other standards is shown when used for commercial testing, their value arising from the fact that the standard is practically of equal intensity and of the same color as the lamp under test—conditions which insure accurate and rapid comparisons.

Our incandescent lamp standards are furnished in pairs, enabling one to be checked against the other should their accuracy be at any time in question. This support may be furnished with an attachment for holding an Amylacetate lamp or a Methven screen and burner.

A curtain may be drawn about the light to cut off extraneous light or prevent annoying reflections. A switch is provided on the stage for closing the circuit of the standard lamp. A sighting vane facilitates adjustment of the lamp with respect to the center of the bar. On the side of the pedestal is a special rheostat to regulate the potential on the standard. By its means the candle-power may be adjusted to within one-tenth of one per cent.

The right hand pedestal carries also a stage supporting a circuit switch, metal screen, curtain and sighting vane. In addition there is an adjustable rotating socket holding the lamp under test and belted to a motor on the pedestal. A switch and controller permits the socket to be run at the desired speed. The test lamp may be adjusted in any azimuth and the mean candle-power obtained for any position. A rheostat on the pedestal, capable of carrying two amperes, permits of close adjustment of the current to any desired value, suiting it to high or low voltage lamps of varying candle power.

Beneath the bar is a cloth covered table provided with a ledge to prevent the lamp from rolling off. Two voltmeters and a low-range ammeter of the portable type are supplied, together with the necessary flexible connectors. One voltmeter is connected to the terminals of the standard lamp, the other to the terminal of the test lamp. The ammeter measures the current on the test lamp, and together with the corresponding voltmeter reading determines the consumption in watts. From this and a measure of the candle-power the efficiency is of course obtained.

The workmanship throughout is of the best. All parts are of metal and finished a durable dead-black. The photometer is easily set up by any one, and requires no preliminary adjustment previous to using.

TEST INSTRUMENTS.

QUEEN STANDARD PHOTOMETER.

SPECIFICATIONS.

Photometer bar direct reading in candle-power—mounted on metal track and supported by cast-iron pedestals.

Screens, curtains, switches, terminal posts and all necessary flexible connectors.

Lummer-Brodhun photometer carriage.

Adjustable support for standard incandescent lamp.

Adjustable rotating socket to fit any desired lamp base.

Motor and controller.

Rheostat for regulating current on standard lamp.

Rheostat for regulating current on test lamp.

Portable voltmeter, single scale, for standard lamp.

Portable voltmeter, double scale, for test lamp.

Portable ammeter for test lamp.

Cloth-covered table, with necessary drawers for lamps, record, blanks, etc.

Two standard lamps, sixteen-candle-power, 110 volts, with certificate of comparison with our Reichsanstalt standard.

| Trade Word. | | | Price. |
|-------------|--------|---|----------|
| Temporal. | T1338. | The Queen standard photometer | \$315.00 |
| Temporize. | T1339. | The Queen standard photometer, without table or meters | 225.00 |
| Temptable. | T1342. | Standard incandescent lamp, with certificates, per pair | 7.50 |
| Temptation. | T1344. | Rotating socket | 30.00 |
| Tempting. | T1345. | Adjustable rotating socket | 40.00 |
| Temulency. | T1346. | Support for amylacetate lamp, adjustable as to height | 5.00 |

THE QUEEN PORTABLE PHOTOMETER.

It is unsatisfactory in an instrument of a portable type to use as a standard a light having an exposed flame. This instrument is supplied with incandescent lamps properly standardized.

The photometer consists of a telescopic box of well-seasoned polished mahogany, about six inches square, and, when closed, about eighteen inches long. This is mounted on a strong tripod. A rack and pinion adjusts the distance of the standard from the screen. A sliding hood cuts off extraneous light.

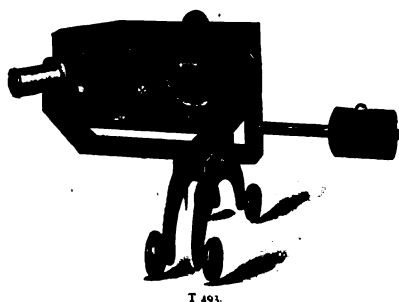
When balance is obtained the candle-power is read off directly on a scale. The screen is of the Bunsen type, available in this instance owing to the similar color and approximately equal intensities of the lights being compared.

A regulating rheostat in series with the standard enables the potential to be adjusted regardless of the line potential.

| Trade Word. | | Price. |
|-------------|---|---------|
| Tenable. | The Queen portable photometer, with tripod and two standard lamps | \$50.00 |

TEST INSTRUMENTS.

THE LUMMER-BRODHUN SCREEN.



T 493.

The Lummer-Brodhun is the most accurate and sensitive device for comparison of lights. It consists of an opaque screen, usually of gypsum, and a pair of right-angle prisms with their hypotheneusal faces partially coinciding. Mirrors reflect the light from the two sides of the screen. From one side the light is reflected by the prism, from the other side transmitted, forming a double field, which is viewed by the telescope. Excepting when equally lighted, the fields present a marked contrast, one or the other appearing bright, according to which source of light illuminates the screen most strongly. When the two sides of the screen are equally illuminated, the dividing line disappears, and the two fields merge into one. Passing through the position of balance, therefore, the two fields are

alternately and oppositely light and dark. This reversion is so marked that but a small movement suffices to produce it, and consequently the screen may be set with great precision.

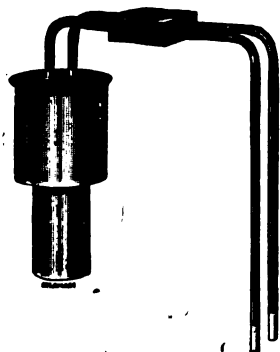
Experiment has proven the Lummer-Brodhun screen to be between three and four times more sensitive than any other form. To accomplish this result, however, the proper relative positions must be given the screen, mirrors and prisms. Ours are constructed with mathematical accuracy.

Our screens are in the form of photometer carriages, suitably constructed to roll on the track of the photometer bar.

| Trade Word. | | Price. |
|-------------|---|---------|
| Tenacious. | T493. Lummer-Brodhun photometer carriage..... | \$60.00 |

PHOTOMETRIC ACCESSORIES.

| Trade Word. | | Price. |
|-------------|--|---------|
| Tenacity. | T486. Candle balance, for one or two candles..... | \$50.00 |
| Tenantable. | T487. Bunsen screen, on carriage..... | 30.00 |
| Tenancing. | T488. Socket for standard lamp, adjustable as to height..... | 5.00 |
| Tenantless. | T489. Adjustable socket, to fit any hose..... | 40.00 |
| Tenantry. | T490. Arc light attachment..... | 75.00 |
| Tendency. | T494. Methven screen, with two slots, for carburetted or ordinary gas..... | 38.00 |
| Tender. | T495. Amylacetate standard lamp..... | 25.00 |
| Tenderling. | T498. Standard sperm candle..... | .50 |



T 438.

CERTIFIED STANDARD COILS.

| Trade Word. | | Price. |
|-------------|-----------------------------------|---------|
| Ejectment. | T438. Standard coil, one ohm..... | \$28.00 |

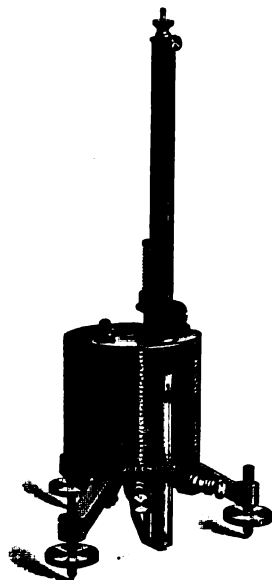
Regular form, wound with platinoid wire, and guaranteed correct to $\frac{1}{50}$ of 1 per cent. Furnished with certificate and handsome case.

| | | |
|-------------|------------------------------------|---------|
| Tenderness. | T438a. Standard coil, 10 ohms..... | \$32.00 |
|-------------|------------------------------------|---------|

Similar in every respect to preceding except as to resistance.

TEST INSTRUMENTS.

QUEEN HORIZONTAL-MAGNET D'ARSONVAL GALVANOMETER.



This instrument is intended to fill a demand for a sensitive dead-beat galvanometer, uninfluenced by magnetic fields. The general design is as illustrated. The tubes containing the systems are interchangeable, a feature of importance, since one is enabled to suit the same galvanometer to work requiring high sensibility and high resistance or low sensibility and low resistance. Moreover, one may have always at hand a spare system to use, should accident injure the other.

The magnets are built up of laminations stamped from the best magnet steel, carefully hardened and "treated." The interchangeable system tubes are held rigidly in place, yet easily removable when it is desired to exchange tubes or examine the system. The outer casing of the system tube is easily removed to repair or examine the system.

The system is suspended by a phosphor bronze strip. Phosphor bronze, in this form, exercises but small control and has not appreciable set. Extra suspension strip is furnished with each system. When not in use the system may be firmly clamped. The systems are made either dead-beat or ballistic as may be ordered. Ballistic systems are dead-beat when used with a short circuit key. Either plane or concave mirrors are furnished. Unless otherwise ordered we always furnish ballistic tubes and plane mirrors.

The deflections produced on these galvanometers are proportional to the current. This permits readings to be compared without correction. The Queen Horizontal-Magnet D'Arsonval Galvanometers are made in two sizes, T311 and T525. The former is larger, heavier, and has the higher sensibility; the latter is lighter and more portable. Each instrument is contained in a well made carrying case.

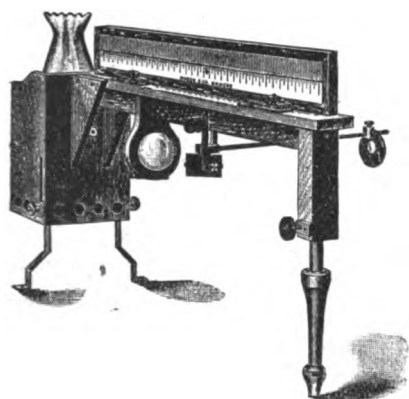
Trade Word.

Price.

| | | | |
|-------------|--------|---|---------|
| Tendinous. | T311. | Queen Horizontal-Magnet D'Arsonval Galvanometer, large pattern, without tube..... | \$40.00 |
| Enriching. | T313. | Interchangeable tube, for T311, resistance 20 ohms, sensibility about 75 megohms..... | 13.00 |
| Enrichment. | T314. | Interchangeable tube, for T311, resistance 200 ohms, sensibility about 200 megohms..... | 14.00 |
| Enring. | T315. | Interchangeable tube, for T311, resistance 1000 ohms, sensibility about 750 megohms..... | 15.00 |
| Tendon. | T316. | Interchangeable tube, for T311, resistance 4000 ohms, sensibility about 1750 megohms..... | 16.00 |
| Tendril. | T525. | Queen Horizontal-Magnet D'Arsonval Galvanometer, small pattern, without tube..... | 40.00 |
| Tendry. | T526. | Interchangeable tube, for T525, resistance 2000 ohms, sensibility about 750 megohms..... | 16.00 |
| Tenebrous. | T527. | Interchangeable tube, for T525, resistance 1000 ohms, sensibility about 500 megohms..... | 15.00 |
| Tenement. | T528. | Interchangeable tube, for T525, resistance 200 ohms, sensibility about 200 megohms..... | 14.00 |
| Tenesmus. | T 529. | Interchangeable tube, for T525, resistance 20 ohms, sensibility about 75 megohms..... | 13.00 |

TEST INSTRUMENTS.

LAMP AND SCALE.

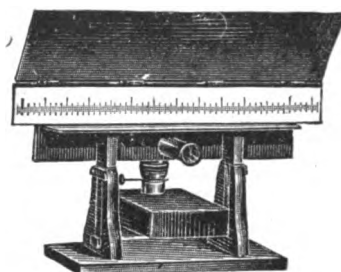


T520.

| Trade Word. | | Price. |
|-------------|---|---------|
| Tense. | T520. Improved lamp and scale (opaque glass)..... | \$17.50 |
| | For galvanometer having plane mirror, so that either reading telescope or lamp and scale can be used. | |
| Tensible. | The above, with 16 c. p. incandescent lamp..... | 18.00 |
| Tensility. | T168. Universal adapter and flexible cord for connecting lampstand with any lamp socket..... | 2.50 |

T354.

| Trade Word. | | Price. |
|-------------|---|---------|
| Tension. | T354. Lamp and scale, with tube and lens..... | \$18.00 |
| | Stand of mahogany, finely polished, having horizontal and vertical adjustments. Scale 50 c. m. long, with zero at center. | |



T354.



T 358.

READING TELESCOPE.

| Trade Word. | | Price. |
|-------------|--|---------|
| Tentacle. | T358. Reading telescope (without scale)..... | \$30.00 |
| | Aperture of objective 27 mm. magnifying power, 20 diameters, mounted on polished wood support, with loaded base. | |

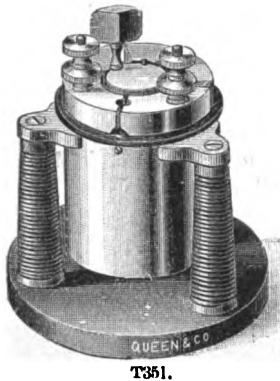
SCALES OF CARDBOARD AND PORCELAIN.

| Trade Word. | | Price. |
|-------------|---|--------|
| Tentacular. | T359. Cardboard scale..... | \$0.25 |
| | Fifty centimeters long, graduated in millimeters, but unnumbered. | |
| Tentative. | T360. Cardboard scale..... | .75 |
| | Fifty centimeters long, graduated in millimeters and numbered in centimeters. | |
| Tenter. | T361. Cardboard scale..... | 3.00 |
| | Fifty centimeters long, same as T360, but mounted on wood back; made of three strips to prevent warping. Specially intended for reading telescope T358. | |
| Tennity. | T362. Cardboard scale..... | 5.00 |
| | Exactly similar to T361, but one hundred centimeters long. | |
| Tepefy. | T363. Porcelain scale..... | 7.50 |
| | Fifty centimeters long, accurately graduated in millimeters and numbered in centimeters. | |
| Tepid. | T364. Porcelain scale..... | 15.00 |
| | One hundred centimeters long; similar to T363. | |

N. B.—The figures on all of the above scales are reversed so as to appear normal when viewed through a telescope.

TEST INSTRUMENTS.

SHUNTS FOR GALVANOMETERS.



Trade Word.

Tepidity.

T350. Shunt Box..... \$32.00

Regular style, in cylindrical brass case. Coils $\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{4}$, resistance of galvanometer.

Tepidness.

T351. Shunt box, on corrugated posts..... \$50.00

Same as preceding, but with special mounting illustrated, to afford maximum leakage surface.

Terebinth.

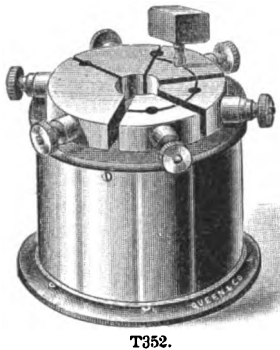
T352. Compensated shunt box..... \$50.00

Coils $\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{4}$, resistance of galvanometer. A special resistance in the box renders the resistance of circuit constant when different shunt coils are used, thus increasing the accuracy of measurement.

Terebrate.

T353. Compensated shunt box, on corrugated posts... \$75.00

Similar to preceding, but mounted like T351.



RESISTANCE COILS OF APPROXIMATE ACCURACY.

Trade Word.

Termagancy.

T442. Resistance coils..... \$30.00

Of German silver wire, mounted in mahogany box. Total resistance 1110 ohms, sub-divided as follows: 1, 2, 3, 4, 10, 20, 30, 40, 100, 200, 300 and 400 ohms. Carefully adjusted and accurate to one-fifth of one per cent.

Termagant.

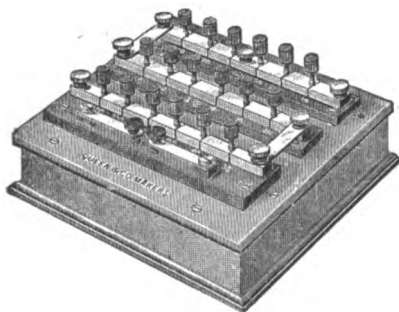
T443. Resistance coils..... \$40.00

Similar to preceding but with an addition of 1000, 2000, 3000 and 4000 ohms, equivalent to total resistance of 11110 ohms.

Terminable.

T444. Resistance coils, with Wheatstone Bridge \$45.00

The same as No. T442, with bridge arms of 10, 100 and 1000 ohms on each side and keys for galvanometer and battery added. Range of measurement from one one-hundredth ohm to 111000 ohms.

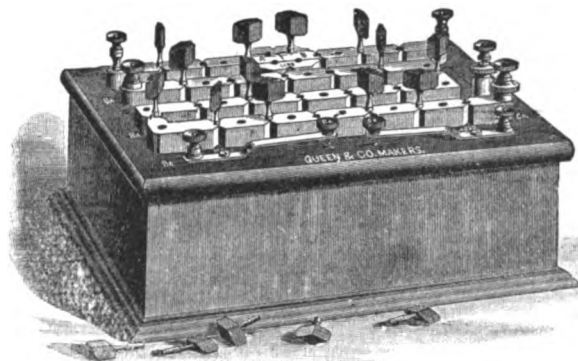


N. B.—The above coils while primarily intended for the use of students in laboratory practice, are well adapted to all measurements that require an accuracy not greater than one-fifth of one per cent.

TEST INSTRUMENTS.

QUEEN STANDARD RESISTANCE COILS.

With Wheatstone bridge (postoffice pattern).



T 426.

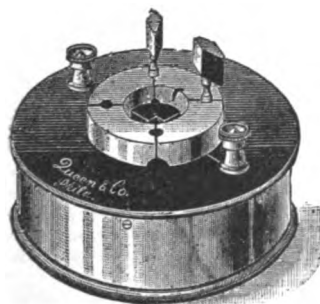
This box is much larger than the ordinary "postoffice" sets, the outside dimensions being $14\frac{1}{8}$ inches long, 10 inches wide, 5 inches deep. As a result we use larger wires, which reduces the temperature error, and the brass blocks and plugs are not crowded together. The coils are of platinoid and consist of 0.5, 1, 2, 3, 4, 10, 20, 30, 40, 100, 200, 300, 400, 1000, 2000, 3000 and 4000 ohms, or a resistance of 11110.5 ohms. There are six coils in the bridge, three on each side—1, 10 and 100 ohms on one arm, and 10, 100 and 1000 ohms on the other. A special reversing attachment is employed, so that by the simple change of two plugs, as in the case of T425, the current can be instantly reversed, and the same results obtained as if eight coils were in the bridge. The total range is from $\frac{1}{1000}$ to 11,110,000 ohms. A certificate is supplied, and the coils are guaranteed correct to $\frac{1}{10}$ of 1 per cent.

Trade Word.

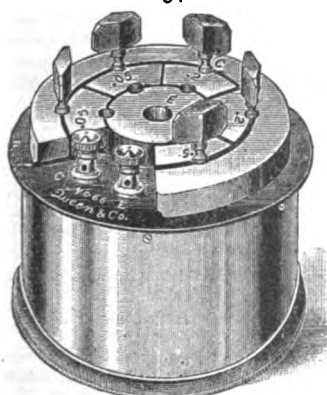
Terminist. T426. Queen standard resistance coils, with Wheatstone bridge (postoffice pattern)..... \$225.00

Termless. T427. Centigrade thermometer, mounted with bulb inside of box..... 5.00

Price.



T. 341.



T. 344.

QUEEN STANDARD CONDENSERS.

We have introduced an essential improvement in condensers, as will appear from the illustrations.

Nos. T341 to T343 contain two sections each, which, when used singly, give one-half the rated capacity, or when connected in multiple, the whole amount.

Thus, in addition to a double capacity, the separate halves can be compared together at any time to check possible inaccuracy.

No. T344 has the usual subdivisions of 0.5, 0.2, 0.1, 0.05, 0.02 M. F.; which, by the above arrangement, can be used singly or in any multiple combination.

The mica employed is selected from the best foreign product, and, because of the great care used in construction, we claim our standard condensers to have no superiors. Each one is accompanied by a certificate of adjustment, etc.

Trade Word.

Price.

| | | | |
|-----------|-------|---|---------|
| Terrace. | T341. | Queen standard condenser, one-third microfarad... | \$60.00 |
| Terrapin. | T342. | Queen standard condenser, one-half microfarad.... | 65.00 |
| Terreous. | T343. | Queen standard condenser, one microfarad..... | 75.00 |
| Terrible. | T344. | Queen standard condenser, one microfarad, subdivided into five parts..... | 100.00 |

TEST INSTRUMENTS.

ELECTRO-DYNAMOMETER.

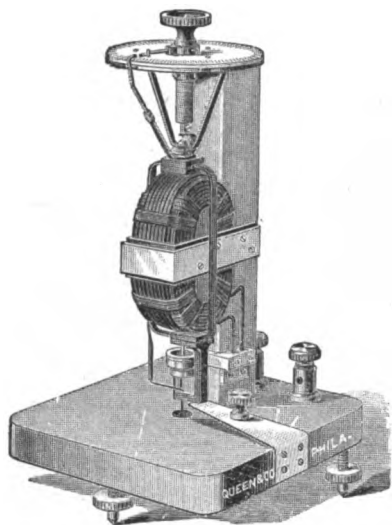
For direct and alternating currents.

STANDARD AMMETER.

The improvements in this form over the regular Siemens type of electro-dynamometer are that as one support is used instead of two the instrument is lighter and the system can be gotten at much more readily, and with the use of a steel point suspension, torsion is altogether done away with. The use of an aluminum pointer instead of brass makes the system much lighter, and the spring to raise and hold the coil makes it perfectly safe during transportation.

The instrument has no parts that can possibly change, hence it makes an excellent standard to use in calibrating ammeters of any kind. *It can be used on alternating circuits as well as direct,* and should be placed in every laboratory where exact results are required.

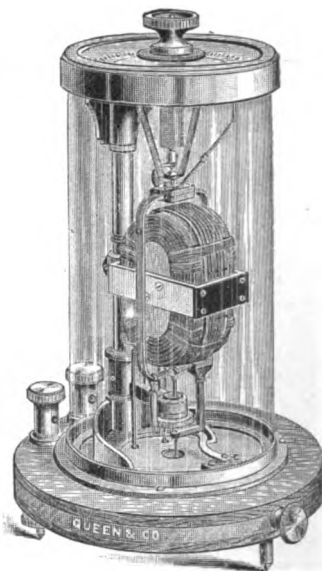
The difference between the "open" and "enclosed" forms are: The base and support of the former are of polished mahogany and the instrument is entirely open, while in the latter the upright and other parts are of highly finished metal, and a glass cylindrical case enclose the dial and coils.



(Open form.)

Open Form.

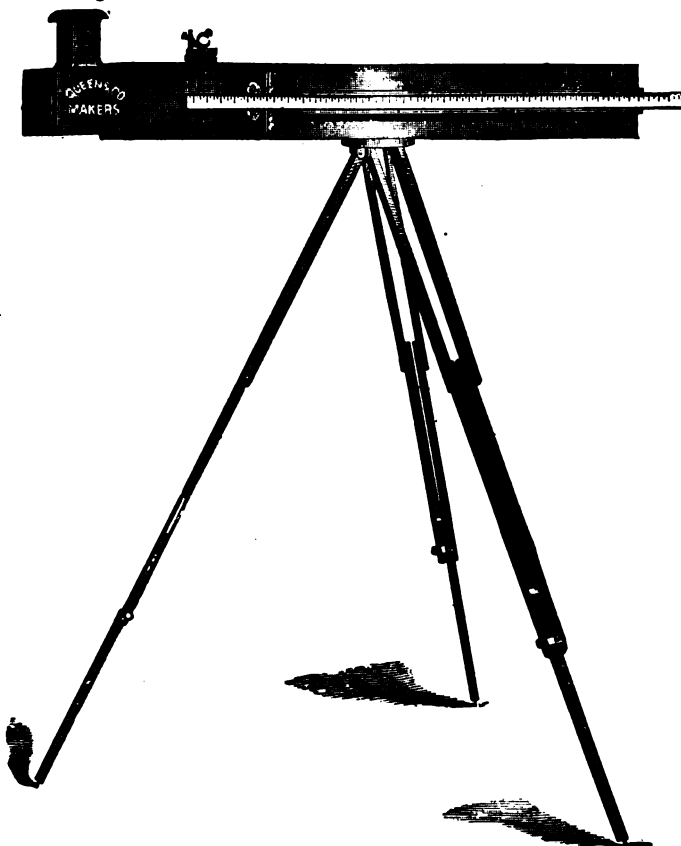
| Trade Word. | Capacity. | Price. |
|--------------|------------------------|----------|
| Enthroned. | 0.2 to 20 Amperes..... | \$ 50.00 |
| Enthroned. | 1.0 " 60 " | 50.00 |
| Enthronment. | 5.0 " 200 " | 60.00 |
| Enthroning. | 10.0 " 500 " | 100.00 |



(Enclosed form.)

Enclosed Form.

| Trade Word. | Capacity. | Price. |
|-------------|------------------------|----------|
| Enthusiasm. | 0.2 to 20 Amperes..... | \$100.00 |
| Enthusiast. | 1.0 " 60 " | 100.00 |
| Entice. | 5.0 " 200 " | 120.00 |
| Enticement. | 10.0 " 500 " | 200.00 |



QUEEN'S PORTABLE PHOTOMETER.

In these days of active competition when there are so many different makers of incandescent lamps, each one of which is the "most efficient," "longest lived" and "cheapest," it is necessary to have some unprejudiced means of comparison for determining which type to adopt.

Our portable photometer will accurately indicate the actual candle power of any incandescent lamp, and can be used in the station or along the line, so that a lamp can be tested under varying conditions. When an arc lamp is under test, a mirror should be used to reflect the rays into the box. This instrument may be reversed on the tripod to allow for the difference of vision of the two eyes.

The outfit is extremely compact and portable, the dimensions being—length, 38 inches; width, 5½ inches; depth, 5½ inches; weight, 13 pounds. The set is complete as illustrated, and comprises the following parts: Photometer box, sight box, lantern with chimney, candle holder, standard candle, meter bar and tripod. These different pieces are taken apart for transportation, and all except the tripod packed into the photometer box.

A necessary part of every central station equipment.

| Trade Word. | Price. |
|----------------|---------------|
| Emaciated..... | each, \$30.00 |

Prices and descriptions of more expensive photometers upon application.

TEST INSTRUMENTS.

SPEED INDICATORS—TACHOMETERS.

Especially adapted for dynamos and high speed engines.

Indicating Stationary Tachometers.

For permanent attachment. Tells at a glance the speed at which you are running.

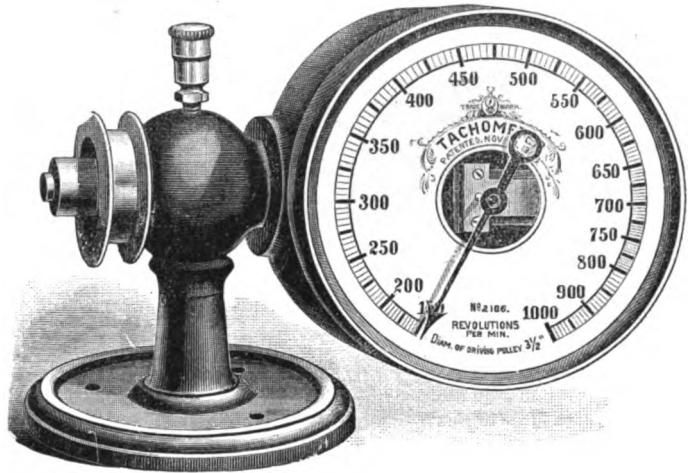
Its construction is based upon centrifugal power, and it consists of a case in which are mounted a pendulum ring in connection with a fixed shaft, a sliding rod and indicating movement. The fixed shaft has a pulley to convey motion to the pendulum ring, and subsequently by the sliding rod to the indicating movement. The dial shows the exact revolutions per minute.

The apparatus is made for various speeds up to 2,000 revolutions, and higher. It is very sensitive, and will indicate the slightest deviation in speed. It is important, however, that the driving belt should be smooth, and the joint made without lapping. The diameter of driving pulley is marked on dial.

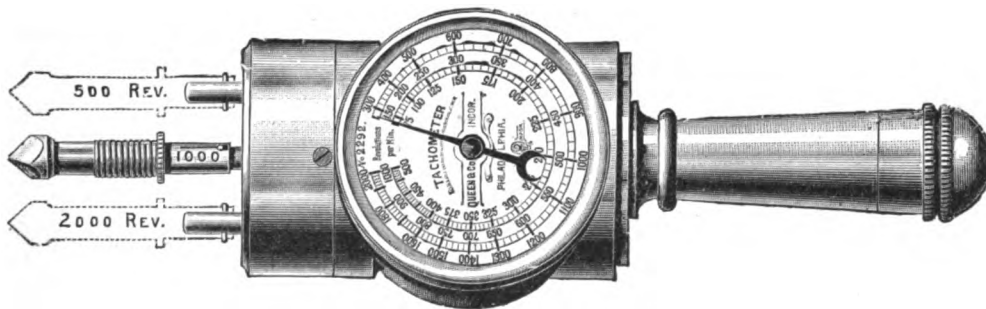
The motion can be in either direction, and the apparatus placed in a vertical or horizontal position, or at any desirable angle between these positions.

| | |
|---|---------|
| Trade Word. | Price. |
| Embroid. Small size, with scale of $5\frac{1}{4}$ in. diam. | \$55.00 |
| Embroid. Large " " " $7\frac{1}{4}$ " " " | 60.00 |

In ordering, please state the approximate number of revolutions to be indicated.



Standard Portable Tachometer.



This tachometer is recommended as a thoroughly reliable instrument for instantly indicating the speed of rotating shafts. Special features in construction render it of much greater value than any portable apparatus of the kind ever before offered. Three shafts, as illustrated, are geared to the rotating parts inside of the case, each one of them having a separate scale on the dials, so that the indications are direct reading throughout. A detachable point, with slightly flexible end, to fit any of the spindles, is supplied, the flexibility of which acts as a safeguard; for, if made perfectly rigid, there is danger of breakage when not applied exactly at right angles to the shaft.

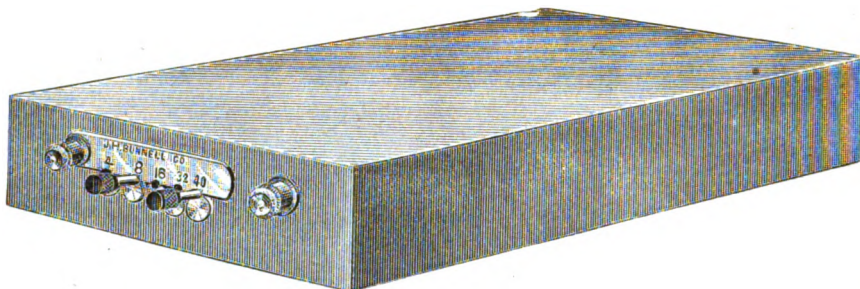
The scales on the dial are graduated as follows: 40 to 200, 120 to 600 and 600 to 3000, which gives a maximum range of 40 to 3000 turns per minute. Thus it is possible to measure directly both high and low speeds, with the same instrument.

The case is nickel-plated, and has a conveniently shaped handle, inside of which (exposed by removing the end) is a set screw, by means of which any lost motion can be taken up, when necessary. A substantial leather carrying case is supplied, which protects the instrument and makes it perfectly portable.

| | |
|--|---------|
| Trade Word | Price. |
| Entoll. Includes detachable spindle, with leather case, range 40 to 3000 turns | \$60.00 |

TEST INSTRUMENTS.

ADJUSTABLE AND NON-ADJUSTABLE CONDENSERS.



For telegraphic, telephonic, electric lighting or experimental purposes.

Adjustable Multiple Condensers.

| Trade Word. | Subdivided into 5 sections. | | | | Price. |
|-------------|-----------------------------|---------------|------------|---------|--------|
| Towelling. | 1 to 2 | microforads.. | \$15.00 to | \$17.00 | |
| Towered. | 2 " 3 | " .. | 20.00 " | 25.00 | |
| Towering. | 4 " 5 | " .. | 27.00 " | 32.00 | |
| Townhall. | 6 " 7 | " .. | 34.00 " | 38.00 | |
| Township. | 8 " 10 | " .. | 42.00 " | 47.00 | |

Non-Adjustable.

| Trade Word. | | | | | Price. |
|-------------|--------|---------------|------------|---------|--------|
| Toyish. | 1 to 2 | microforads.. | \$13.00 to | \$15.00 | |
| Traceable. | 2 " 3 | " .. | 17.00 " | 22.00 | |
| Tracery. | 4 " 5 | " .. | 25.00 " | 30.00 | |
| Tracking. | 6 " 7 | " .. | 32.00 " | 37.00 | |
| Trackless. | 8 " 10 | " .. | 39.00 " | 44.00 | |

ORDINARY NON-ADJUSTABLE CONDENSERS.

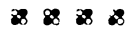
For telephonic or experimental purposes.

| Trade Word. | Price. | Trade Word. | Price. |
|-------------|--|-------------|----------------------------|
| Tractable. | .02 to .3 microforads.. \$4.00 to \$7.50 | Tractarian. | .5 microforads..... \$7.50 |

TIN FOIL FOR CONDENSERS.

| Trade Word. | Price. |
|-------------|--|
| Trader. | 10-lb. packages; sheets 7 in. by about 36 in. per lb., \$0.36 |

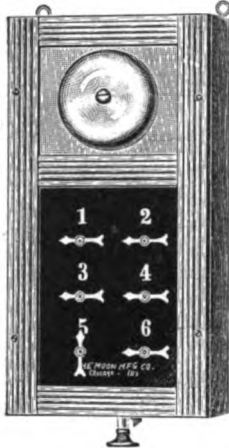
HOUSE GOODS



We have, embraced in this department,
a wide variety of apparatus, and have
included no device or material that has
not been thoroughly tested and found
perfectly adapted to its contemplated
requirement. Purchasers can be assured
that they will receive the best of the
respective kinds.

HOUSE GOODS.

ANNUNCIATORS.



The Eclipse.
A high grade competition house annunciator. Fully guaranteed.
Furnished in oak cases only.

| Trade Word. | | Price. | |
|-------------|-----------------|--------|--------------|
| | | each, | in doz. lots |
| Terrier. | 4 indicators... | \$4.45 | \$4.00 |
| Terrific. | 6 " | 6.00 | 5.40 |
| Terrify. | 8 " | 7.60 | 6.84 |
| Terrifying. | 10 " | 9.10 | 8.20 |
| Territory. | 12 " | 10.70 | 9.65 |

Style A House Annunciators.

| Trade Word. | | Price. | |
|-------------|-----------------|--------|--------------|
| | | each, | in doz. lots |
| Terrorism. | 2 indicators... | \$4.00 | \$4.00 |
| Tersely. | 3 " | 4.50 | 4.50 |
| Laugh. | 4 " | 5.00 | 5.00 |
| Laughed. | 5 " | 6.50 | 6.50 |
| Laughable. | 6 " | 7.00 | 7.00 |
| Laughter. | 8 " | 9.00 | 9.00 |
| Laumonte. | 10 " | 11.00 | 11.00 |
| Laudatory. | 12 " | 13.20 | 13.20 |
| Terseness. | 14 " | 15.40 | 15.40 |
| Tertian. | 16 " | 17.60 | 17.60 |
| Tesletate. | 18 " | 19.80 | 19.80 |
| Tessular. | 20 " | 22.00 | 22.00 |



Style A.

THE RIVAL AUTOMATIC ANNUNCIATOR.

When a call is made the needle indicates the same and remains pointing until the next call is made known by the ringing of the annunciator bell. If it is from the same place the position of the needle is not changed, but if from another the needle is instantly reset, a new indication showing at the same moment. Should two calls come at the same time, the previous indication will be reset and both new calls indicated. This is the only instrument which will accomplish this. It is the only instrument also furnished with mechanical reset. This is a very desirable addition.

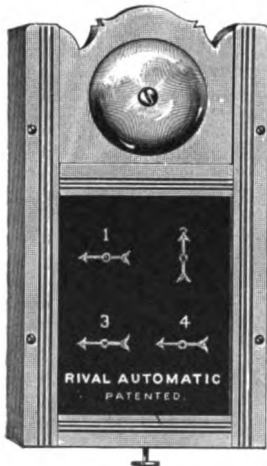
Desirable Combinations.

We fit the annunciator with a switch on the side of the case, by which it can be changed at will from an automatic to a plain mechanical set-back.

Price, net.....\$0 25

| Trade Word. | Rival automatic annunciator. | Arrangement. | | | Extreme Measurements. | Price. |
|--------------|------------------------------|--------------|---------|-------|-----------------------|--------|
| | | Drops. | Across. | Down. | | |
| Observe. | 3 | 2 | 1 | 1 | 6 1/4 x 11 1/4 in. | \$7.00 |
| Tramplng. | 4 | 2 | 2 | 2 | 6 1/4 x 11 1/4 in. | 7.75 |
| Observingly. | 6 | 2 | 3 | 3 | 6 1/4 x 14 in. | 9.20 |
| Obsess. | 8 | 2 | 4 | 4 | 6 1/4 x 16 1/4 in. | 11.00 |
| Obsidian. | 9 | 3 | 3 | 3 | 8 1/4 x 14 in. | 12.00 |
| Testacea. | 10 | 2 | 5 | 5 | 6 1/4 x 18 1/4 in. | 13.00 |
| Obsignate. | 12 | 3 | 4 | 4 | 8 1/4 x 16 1/4 in. | 15.00 |

Intervening sizes at proportionate prices.



THE "DANDY" TWO-POINT INDICATING BELL.

| Trade Word. | Price. |
|-------------------------|--------|
| Nutting. Two-point..... | \$2.50 |

We also make a three-point indicator by the addition of a small Lungen buzzer under cover of the gong.

| Trade Word. | Price. |
|---------------------------|--------|
| Nuthook. Three-point..... | \$3.50 |



Size of case, 4 1/4 x 5 inches.

HOUSE GOODS.

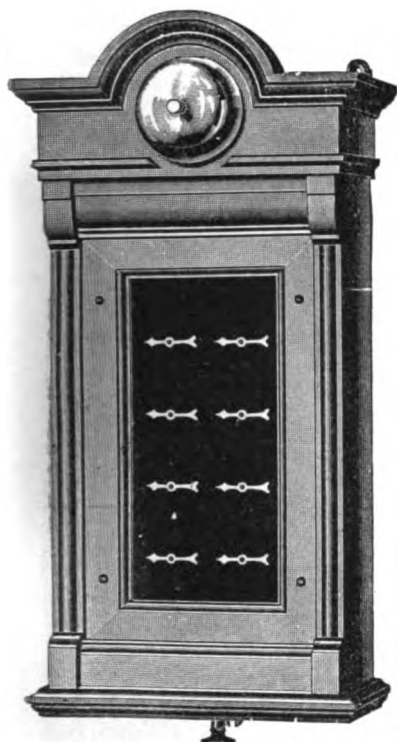
HOUSE ANNUNCIATOR.

Style C. Heavy case.

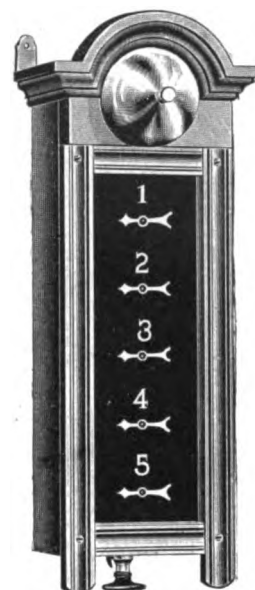
| Trade Word. | | Price. |
|-------------|---------------|---------|
| Mid. | 4 indications | \$ 6.00 |
| Midage. | 6 " | 8.00 |
| Midcourse. | 8 " | 10.00 |
| Midday. | 10 " | 12.50 |
| Midden. | 12 " | 15.00 |
| Fable. | 14 " | 17.50 |
| Middest. | 16 " | 20.00 |
| Middlings. | 18 " | 22.50 |
| Midleg. | 20 " | 25.00 |

ELEVATOR ANNUNCIATOR.

| Trade Word. | | Price. |
|-------------|-----------|---------------|
| Liquor. | 3 numbers | each, \$ 4.50 |
| Lisbond. | 4 " | 6.00 |
| Ligulate. | 5 " | 7.00 |
| Lisp. | 6 " | 8.00 |
| Ligure. | 7 " | 9.00 |
| Lisped. | 8 " | 10.00 |
| Ligurite. | 9 " | 11.25 |
| Lilalite. | 10 " | 12.50 |
| Liliputian. | 12 " | 15.00 |



Style C.



Elevator annunciator.

BURGLAR ALARM.

Style A.

| Trade Word. | | Price. |
|-------------|-----------|---------|
| Lithograph. | 4 numbers | \$10.00 |
| Litigant. | 6 " | 15.00 |

When more than six indications are required, see Style D.

Burglar Alarm.

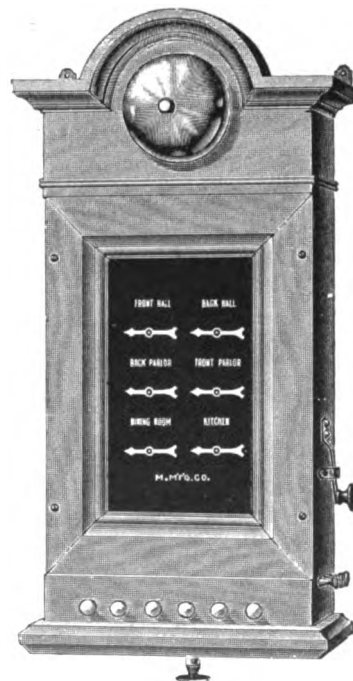
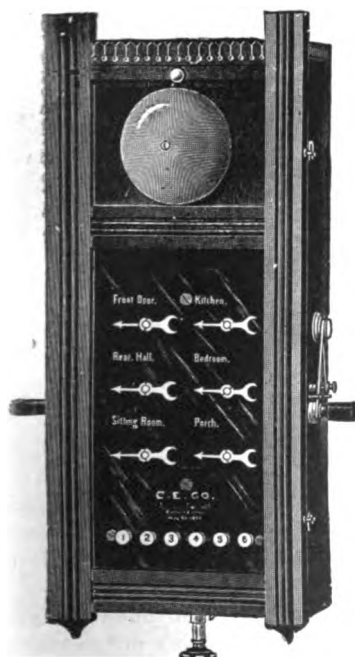
Style D.

| Trade Word. | | Price. |
|-------------|-----------|---------|
| Middle. | 4 numbers | \$13.50 |
| Midge. | 6 " | 19.00 |
| Midmost. | 8 " | 24.00 |
| Midlent. | 10 " | 29.00 |
| Midlife. | 12 " | 34.00 |
| Midword. | 14 " | 40.00 |
| Midcord. | 16 " | 45.50 |
| Mien. | 18 " | 50.50 |
| Miemite. | 20 " | 56.00 |

CABLE FOR ELEVATOR ANNUNCIATORS.

Style A.

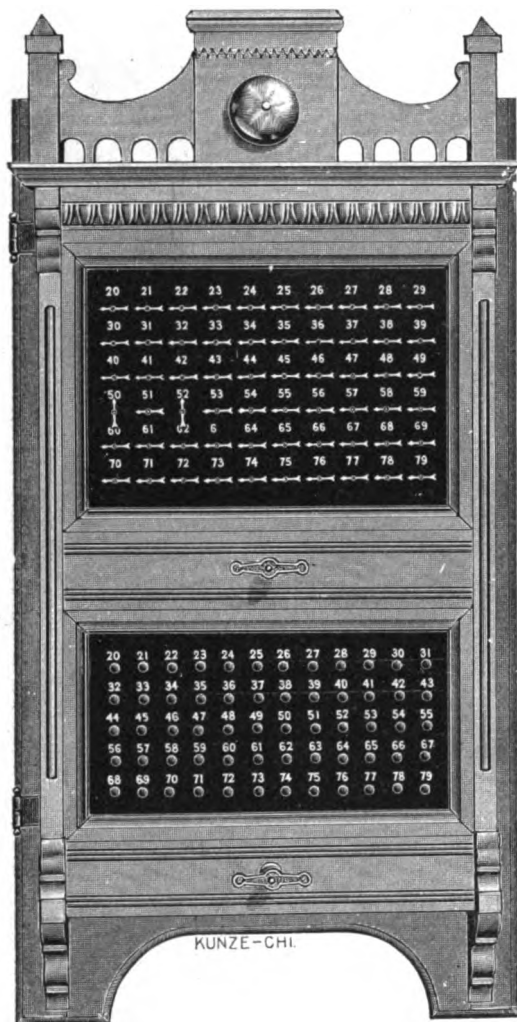
| Trade Word. | | No. | annunciator | per foot, \$ |
|-------------|--------------------------------------|-----|-------------|--------------|
| Lisping. | 4 conductors (for 3 No. annunciator) | 4 | " | .25 |
| Lispingly. | 5 " | 5 | " | .30 |
| Listen. | 6 " | 6 | " | .35 |
| Listened. | 7 " | 7 | " | .40 |
| Listening. | 8 " | 8 | " | .45 |
| Listful. | 9 " | 9 | " | .50 |
| Listless. | 10 " | 10 | " | |



Style D.

HOUSE GOODS.

ANNUNCIATORS.



HOTEL STYLE B.

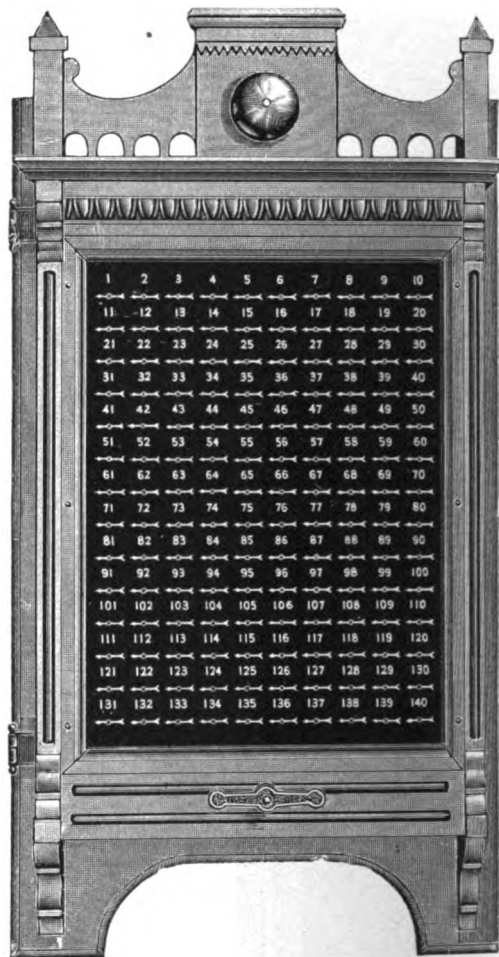
With guest call.

| | Per No. |
|----------------------------------|---------|
| 40 to 70 numbers, inclusive..... | \$1.95 |
| 71 to 120 " " | 1.80 |
| 120 and upward, " | 1.65 |

With guest call and fire alarm.

| | |
|----------------------------------|------|
| 40 to 70 numbers, inclusive..... | 2.25 |
| 71 to 120 " " | 2.05 |
| 120 and upward, " | 1.90 |

We strongly recommend the Samson battery for use in connection with all hotel annunciator work. The superior quality of carbon (porous) cup and the large zinc surface insures a larger volume of current and greater recuperative power than any other form of sal ammoniac battery.



HOTEL STYLE B.

Without guest call or fire alarm.

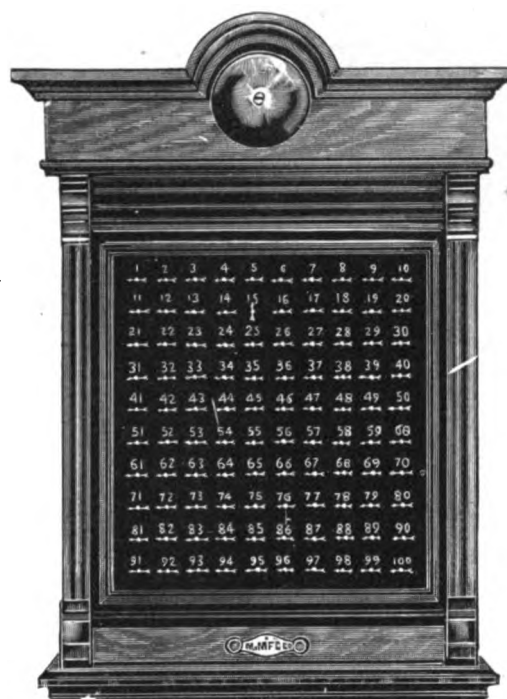
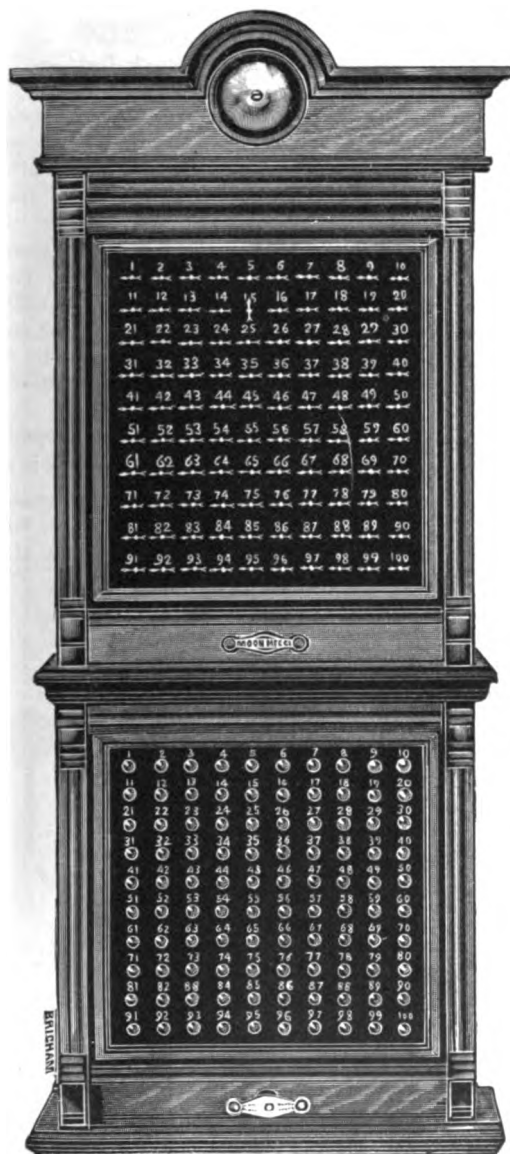
| | Per No. |
|----------------------------------|---------|
| 40 to 70 numbers, inclusive..... | \$1.30 |
| 71 to 120 " " | 1.20 |
| 120 and upwards, " | 1.10 |

NOTE.—In ordering either style of annunciator illustrated on this page, care should be taken to state kind of wood wanted and give special instructions about lettering or numbering.

Notice that the guest-call style is made with or without the fire-alarm attachment, also difference in price.

HOUSE GOODS.

ANNUNCIATORS.



HOTEL STYLE A.

Without guest call or fire alarm.

| | | | |
|-----------------------------|-------|------------|--------|
| 21 to 40 numbers, inclusive | ..... | per number | \$1.20 |
| 41 to 60 | " | " | 1.15 |
| 61 to 120 | " | " | 1.10 |

NOTE.—In ordering either style of annunciator illustrated on this page, care should be taken to state kind of wood wanted and give special instructions about lettering or numbering.

Notice that the guest-call style is made with or without the fire-alarm attachment, also difference in price.

HOTEL STYLE A.

With guest call.

| | | | |
|-----------------------------|-------|------------|--------|
| 21 to 40 numbers, inclusive | ..... | per number | \$1.80 |
| 41 to 60 | " | " | 1.73 |
| 61 to 120 | " | " | 1.65 |

With guest call and fire alarm.

| | | | |
|-----------------------------|-------|------------|--------|
| 21 to 40 numbers, inclusive | ..... | per number | \$2.05 |
| 41 to 60 | " | " | 1.98 |
| 61 to 120 | " | " | 1.90 |

Hotel annunciator with return call can be made for either the single or double wire systems as preferred. The prices given above are for the double or three wire system, as most electricians are more familiar with this system of wiring; we make our hotel annunciators in this manner unless otherwise ordered.

HOUSE GOODS.

BELLS AND BUZZERS.

**Combination Bell and Push-Button.**

The binding posts, of which there are three, are made with particular reference to obtaining security from loosening and the wire slipping from under the connections. The posts are fastened to the base with two screws riveted.

Wires coming from the wall are held securely under these binding posts by passing them through a hole in the post and then under a washer. This precludes any possibility of their loosening. Sufficient space, where it will not

interfere with the working parts of the bell, is left in the metal case to coil away the surplus wire required in wiring.

The three-point push in this bell is made in such a manner that the spring used to make the necessary closed contact will not become "set" and cause the bell to refuse to ring, as is liable to occur when care is not used in regard to this important detail.

Trade Word.

In dozen lots.

Price.

Pantomime. Combination bell and push button.....each, \$1.50 each, \$1.70

Watch-Case Buzzer.

A perfectly adjusted buzzer, placed in a well nickeled tin box and fitted with binding posts on outside of case. The arma-

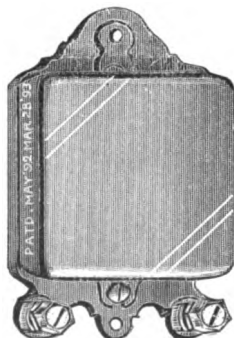
ture will not stick, which is a trouble frequently found in small metal buzzers.

Trade Word

Price.

Papacy. Watch-case buzzer.....each, \$0.70

In dozen lots..... " 0.65

**Improved Iron-Box Buzzer.**

To meet the demand for a low-priced buzzer, we have placed this on the market, and feel confident that it will give entire satisfaction.

It has pivoted armature, double adjustment and all latest improvements.

Trade Word.

Price.

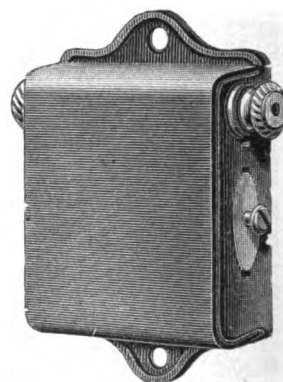
Nurtured. Improved iron-box buzzer.....each, \$0.44

In dozen lots..... " 0.40

In 50 lots..... " 0.36

The Eco Buzzer.

Small, but effective. All nickel plated.



See description of Eco bells.

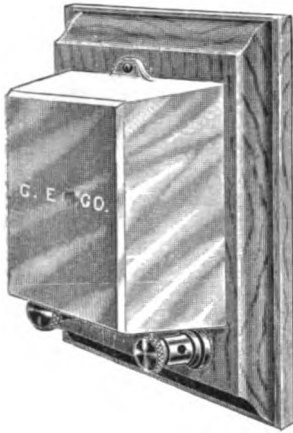
| Trade Word. | No. | Price. | Price in dozen lots. |
|-------------|--------|--------------|----------------------|
| Trance. | 0..... | each, \$0.70 | \$0.63 |
| Tranquil. | 1..... | " .60 | .54 |
| Transactor. | 2..... | " .70 | .63 |
| Transcend. | 3..... | " .65 | .59 |

HOUSE GOODS.

BELLS AND BUZZERS.

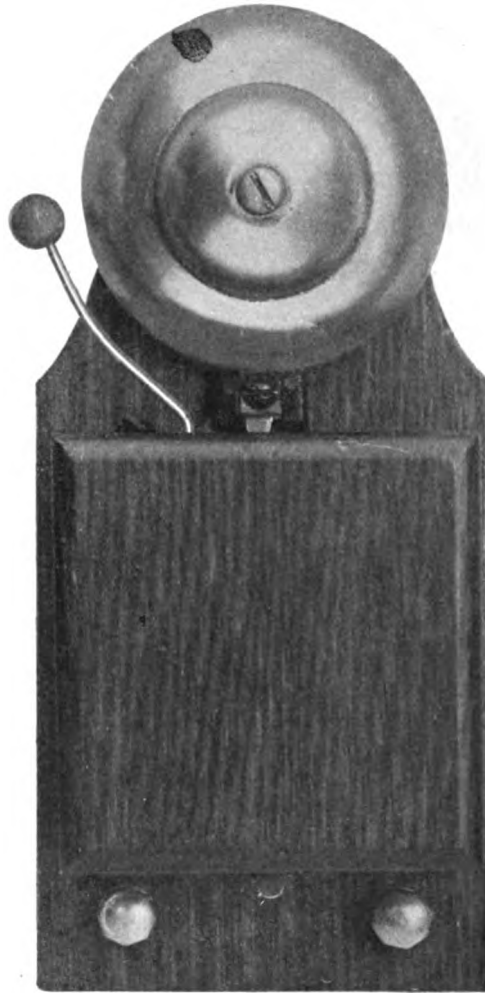
Central Buzzer.

Nickel-plated, square top, wood base.



Cut half size.

| | | |
|-------------|---------------|---------------|
| Trade Word. | Each | Price. |
| Latin. | in dozen lots | \$0.70 .65 |

Improved Ex. B. B. Iron Box Bell.**Rex Wood Box Bells.**

Cut is with dome gong.

| Trade Word. | Price. | Price in doz. lots. |
|-------------------------------------|--------------|------------------------|
| Latchkey. 2½-inch, N. P. plain gong | each, \$0.64 | \$0.58 |
| Latches. 3 " " " " | .65 | .60 |
| Latchless. 4 " " " " | 1.00 | .90 |
| Mulberry. "New Band," fancy gong | | .85 |
| Mulch. "Cow" or "Sheep" fancy gong | | .85 |
| Mule. "Garland," | | .85 |
| Mullish. "Dome" | | .85 |
| Mullishly. "Sleigh," | | .85 |

Improved Ex. B. B. Iron Box.—Fancy Gong.

| Trade Word. | Price. | Price in doz. lots. |
|--------------------------------|--------------|------------------------|
| Fabric. "New Band," | each, \$0.65 | \$0.60 |
| Fabricate. "Garland," | .65 | .60 |
| Fabrication. "Cow" or "Sheep," | .65 | .60 |
| Fabricator. "Dome," | .65 | .60 |
| Fabulist. "Sleigh," | .65 | .60 |

HOUSE GOODS.

BELLS.

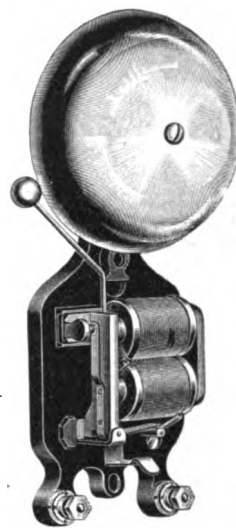
The Extra B. B. Bell.

"Extra best best."

A high quality competition bell, fully guaranteed.



With cover.



Without cover.

| Trade Word. | | | Price. | Price in dozen lots. | Price in 50 lots. |
|-------------|--------------|-------|--------|----------------------|-------------------|
| Lungis. | 2½ inch gong | each, | \$0.42 | each, \$0.38 | each, \$0.35 |
| Luniform. | 3 " " | " | 44 | " .38 | .35 |
| Lupine. | 4 " " | " | .65 | " .60 | .55 |

The New Tyrolean Bell.



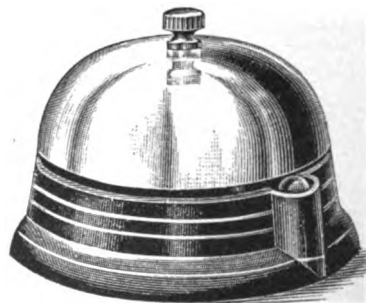
This is the most elegant hall bell ever manufactured. From a handsome bracket is suspended a 4-inch tea gong, inside of which is attached a well-made vibrating mechanism.

| Trade Word. | Price. |
|----------------------------|--------------|
| Nustle. Full nickel-plated | each, \$4.50 |

Iron Monitor Bell.

A neat, compact and reliable round bell.

Made only in one size, 3-inch.



CUT ONE-HALF SIZE.

| Trade Word. | Price. |
|-----------------|--------|
| Panada. Each | \$0.80 |
| " in dozen lots | .75 |

HOUSE GOODS.

BELLS.

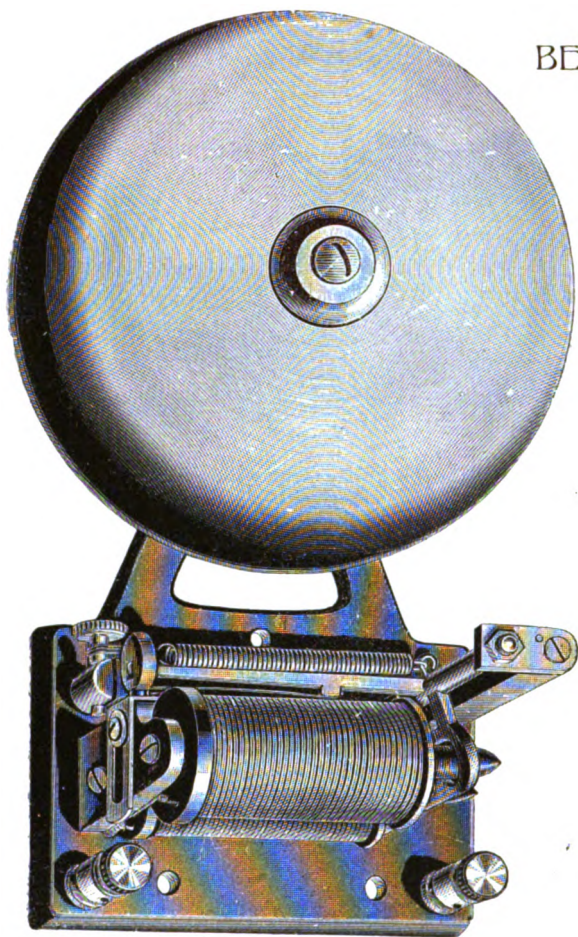
Single Stroke Electric Bell.

For railroads, factories, fire alarms, etc.

The hammer rod of this bell has a short leverage, but a long sweep, thus enabling it to give rapid and powerful blows: a stiff, flat spring causes the striker to instantly leave the gong after delivering the blow, making the signals perfectly distinct, no matter how rapidly given.

The length of stroke and tension are adjustable.

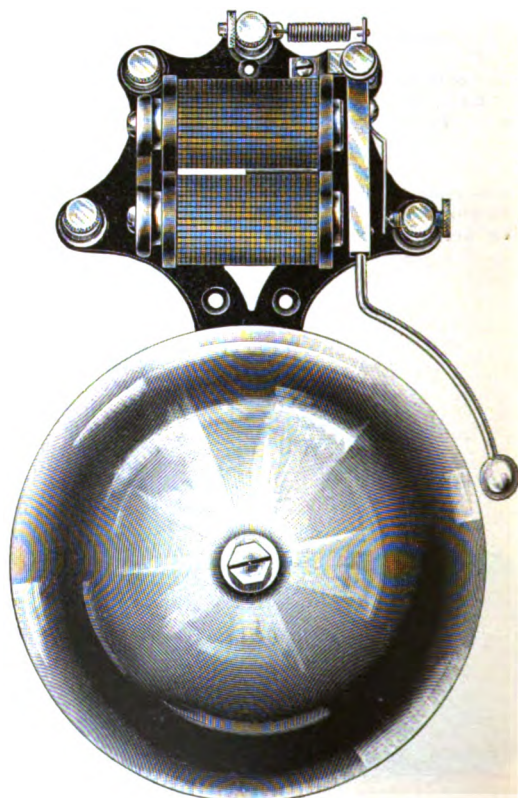
| Trade Word. | | Price. |
|-------------|---------------|--------------|
| Haze. | 3 inches..... | each, \$5.00 |
| Haziness. | 4 " | " 6.00 |
| Head. | 5 " | " 6.50 |
| Headed. | 6 " | " 8.00 |
| Headfast. | 8 " | " 10.00 |
| Heading. | 10 " | " 14.50 |
| Headland. | 12 " | " 16.00 |
| Headless. | 14 " | " 29.00 |



Style D Skeleton Bell.

Our Style D skeleton bell may be classed in the highest grade of electric signaling devices. We do not believe that it has ever been excelled in point of workmanship and appearance. Where an extra nice piece of finish is desired, we recommend the use of this bell. The gongs are made of cast bell-metal, nickel plated, and give a clear, penetrating tone. The armature is pivoted on a steel arbor which works between two adjustable brass screws, having a lock-nut to prevent possibility of becoming loose. The contact screw and adjusting spring are provided with lock-nuts. The contact points are made of pure platinum, riveted in. The contact post is so arranged that it is impossible to work loose and get out of adjustment.

| Trade Word. | | Price. |
|-------------|-------------------|--------|
| Transcribe. | 3 inch gong | \$1.90 |
| Lancet. | 4 " | 2.25 |
| Land. | 5 " | 3.00 |
| Landau. | 6 " | 3.50 |
| Landed. | 7 " | 5.00 |
| Landholder. | 8 " | 6.50 |
| Landlady. | 10 " | 10.00 |
| Landlot. | 12 " | 17.00 |
| Landlubber. | 14 " | 27.00 |
| Landowner. | 15 " | 30.00 |



Style D Skeleton.

HOUSE GOODS.

FANCY GONGS.

Nickel plated.



Dome Gongs.

| Trade Word. | No. | Diameter at mouth. | Height. | Price. |
|-------------|-----|--------------------|----------|------------------|
| Testimony. | 1. | 2½ inch. | 1¼ inch. | per doz., \$3.00 |



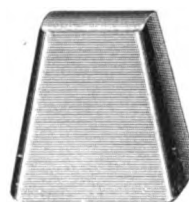
New Band Gongs.

| Trade Word. | No. | Diameter at mouth. | Height. | Price. |
|-------------|-----|--------------------|----------|------------------|
| Tetragon. | 4. | 2¾ inch. | 1½ inch. | per doz., \$5.00 |



Beaded Gongs.

| Trade Word. | No. | Diameter. | Height. | Price. |
|-------------|-----|-----------|----------|------------------|
| Testiness. | 1. | 2½ inch. | 1¼ inch. | per doz., \$4.00 |
| Testing. | 2. | 3⅞ " " | 1½ " " | " " 5.00 |



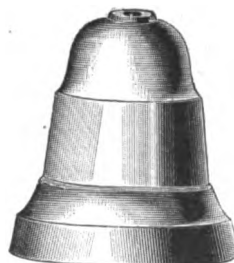
Rectangular Gongs.

| Trade Word. | No. | Opening inches. | Height. | Price. |
|-------------|-----|-----------------|---------|------------------|
| Tetrarch. | 3. | 2⅞ x 2½ in. | 2⅞ in. | per doz., \$5.00 |



Cup Gongs.

| Trade Word. | No. | Diameter at mouth. | Height. | Price. |
|-------------|-----|--------------------|----------|------------------|
| Tetarmus. | 2. | 2⅞ inch. | 1¼ inch. | per doz., \$4.00 |
| Tether. | 5. | 2⅞ " " | 2½ " " | " " 6.00 |

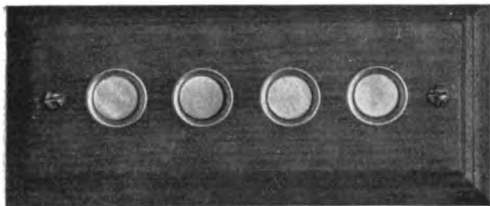


Garland Gongs.

| Trade Word. | Diameter. | Height. | Price. |
|-------------|-----------|----------|------------------|
| Teutonic. | 2 inch. | 2½ inch. | per doz., \$3.00 |

HOUSE GOODS.

PUSH-BUTTONS.

**Compound Wood Call Push.**

With white pearl buttons.

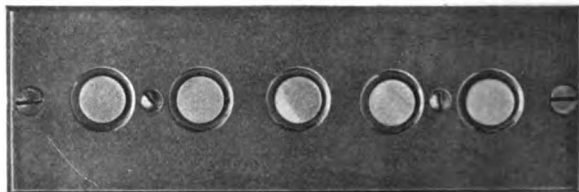
| Trade Word. | | Price. |
|---------------|-----------------|--------|
| Legislative. | 2 buttons | \$0.50 |
| Legislator. | 3 " | .75 |
| Legislature. | 4 " | 1.00 |
| Navideno. | 5 " | 1.20 |
| Legitimate. | 6 " | 1.30 |
| Navigateur. | 7 " | 1.65 |
| Legitimately. | 8 " | 1.80 |
| Legitimist. | 10 " | 2.00 |

Furnished in ash, walnut, oak or mahogany. *State in connection with trade word the kind of wood desired.* Add 20 cents per button to list prices for engraving name on button.

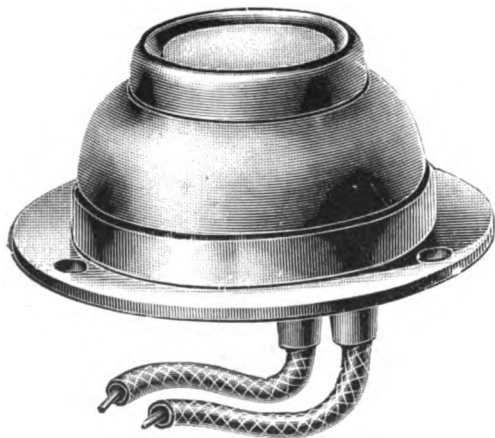
Compound Metal Push.

Nickel plated with white pearl buttons.

| Trade Word. | | Price. |
|-------------|-----------------|--------|
| Legless | 2 buttons | \$0.50 |
| Neaumoius. | 3 " | .75 |
| Leisure. | 4 " | 1.00 |
| Nearness. | 5 " | 1.20 |
| Leisurely. | 6 " | 1.30 |
| Neathered. | 7 " | 1.65 |
| Leming | 8 " | 1.80 |
| Lemon. | 10 " | 2.00 |



NOTE.—We supply these and other metal pushes in all of the popular finishes to match other hardware. Bronze, silver, oxidized silver, oxidized copper, antique, Bower-Barff, verde antique, sand blast, etc. Prices for special finishes quoted on request.

**Improved Water-Tight Push-Button.**

One of the greatest difficulties with electrical call systems on vessels, in cold storage warehouses, etc., has been caused by water and dampness penetrating the push-buttons, thereby corroding the contacts and making the system inoperative. This has been overcome with the push as shown by accompanying illustration. The button is made of cast bronze in three parts. The cap, which is screwed on, is provided with a pure gum disk, which, being elastic, will give when pressing button, but prevents water or moisture from getting to the inside of shell. The ring is provided with two lugs to connect soft rubber tubing to cover the connecting wires; the back is hard rubber springs, German silver with heavy pure platinum contacts. This makes a perfect water-tight push, reliable in every respect; they are being used extensively on government vessels, in vaults, ice houses, etc.

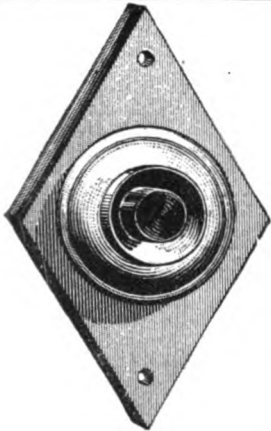
| Trade Word. | | Price. |
|-------------|------------------------------|--------|
| Pantess. | With platinum contacts | \$2.50 |
| Panther. | Without " " | 2.00 |

HOUSE GOODS.

PUSH-BUTTONS.

No. 15. (Loose Back.)

| Trade Word. | Size, $3\frac{3}{4} \times 1\frac{1}{2}$. | Price. |
|-------------|--|--------------|
| Lecher. | Sanded copper..... | each, \$0.50 |
| Lection. | Sanded silver..... | ..50 |
| Leetide. | Polished bronze..... | ..45 |
| Lawlessly. | Oxidized copper..... | ..45 |
| Lawlor. | Bower-Barff..... | ..45 |



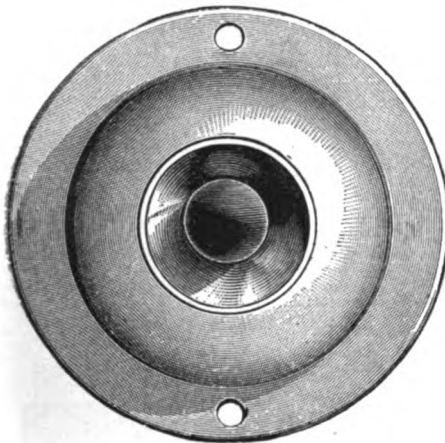
No. 15.

No. 183. Cast (Loose Back.)

| Trade Word. | Diameter, $2\frac{1}{4}$ inches. | Price. |
|-------------|----------------------------------|-----------------|
| Lawyer. | Polished bronze..... | each, \$0.25 |
| | In dozen lots..... | Per dozen, 2.75 |
| Lawyerly. | Dark inlaid..... | each, .25 |
| | In dozen lots..... | Per dozen, 2.75 |
| Lawsnite. | Oxidized copper..... | each, .25 |
| | In dozen lots..... | Per dozen, 2.75 |



No. 183.



No. 181.

No. 181. Cast (Loose Back.)

| Trade Word. | Diameter, $2\frac{1}{4}$ inch. | Price. |
|-------------|--------------------------------|-----------------|
| Hecatomb. | Sanded copper..... | each, \$0.25 |
| | In dozen lots..... | Per dozen, 2.75 |
| Heck. | Oxidized copper..... | each, .25 |
| | In dozen lots..... | Per dozen, 2.75 |
| Heckle. | Polished bronze..... | each, .25 |
| | In dozen lots..... | Per dozen, 2.75 |
| Hectare. | Bower-Barff..... | each, .25 |
| | In dozen lots..... | Per dozen, 2.75 |

No. 203. Cast (Loose Back.)

| Trade Word. | Size 5×2 inches. | Price. |
|-------------|---------------------------|-----------------|
| Hectic. | Sanded copper..... | each, \$0.60 |
| | In dozen lots..... | Per dozen, 3.00 |
| Hectical. | Oxidized copper..... | each, .60 |
| | In dozen lots..... | Per dozen, 3.00 |
| Hector. | Polished bronze..... | each, .60 |
| | In dozen lots..... | Per dozen, 3.00 |
| Hected. | Bower-Barff..... | each, .60 |
| | In dozen lots..... | Per dozen, 3.00 |



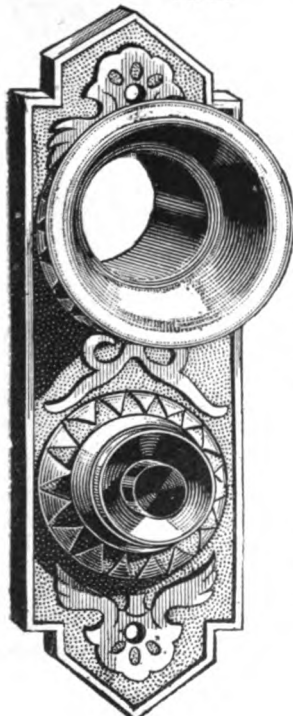
No. 203.

No. 208. Cast (Loose Back.)

| Trade Word. | Size, $5\frac{1}{2} \times 1\frac{1}{2}$ inches. | Price. |
|-------------|--|--------------|
| Hectoring. | Oxidized copper..... | each, \$0.80 |
| Hectorism. | Sanded copper..... | ..80 |
| Hectorly. | Polished bronze..... | ..80 |
| Heddlar. | Dark inlaid..... | ..80 |
| Hederal. | Bower-Barff..... | ..80 |

No. 205. Cast (Loose Back.)

| Trade Word. | Size, $4\frac{3}{4} \times 2\frac{3}{4}$ inches. | Price. |
|-------------|--|--------------|
| Hedge. | Oxidized copper..... | each, \$0.60 |
| Hedging. | Sanded copper..... | ..60 |
| Hedonic. | Polished bronze..... | ..60 |
| Hedgepig. | Dark inlaid..... | ..60 |
| Hedgarrow. | Bower-Barff..... | ..60 |



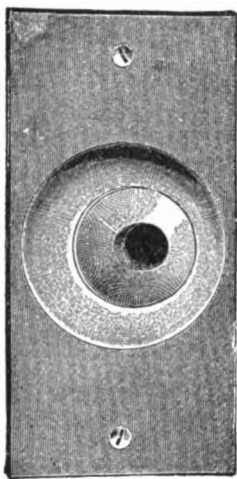
No. 208.



No. 205.

HOUSE GOODS.

PUSH-BUTTONS.



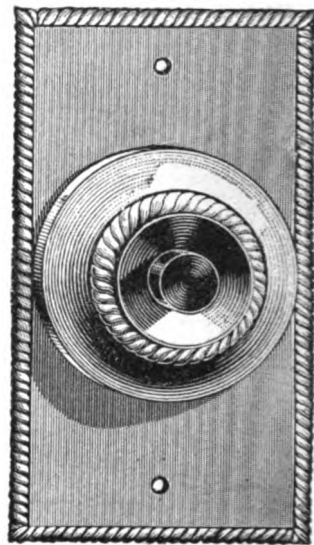
No. 199.
Size, $4\frac{1}{2} \times 2\frac{1}{4}$.

| Trade Word. | | Price. |
|-------------|-------------------------|--------|
| Harangued. | Sanded copper.....each, | \$0.60 |
| Haranguing. | Oxidized copper .. " | .60 |
| Harass. | Polished bronze... " | .60 |
| Harassing. | Bower-Barff | .60 |



No. 206.
Size, $4\frac{1}{2} \times 2\frac{1}{4}$.

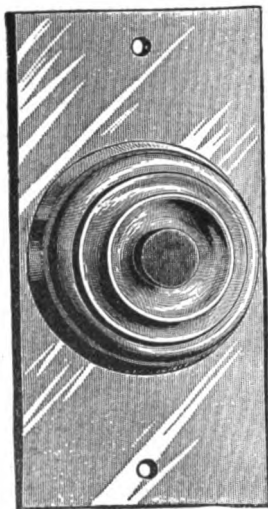
| Trade Word. | | Price. |
|-------------|---------------------------|--------|
| Harbinger. | Oxidized copper.....each, | \$0.55 |
| Harbor. | Polished bronze..... " | .55 |
| Harborage. | Dark inlaid..... " | .55 |
| Harboring. | Bower-Barff..... " | .55 |



No. 207.
Size, $4 \times 2\frac{1}{4}$.

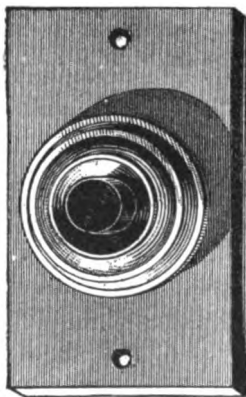
| Trade Word. | | Price. |
|-------------|-------------------------|--------|
| Harboring. | Sanded copper.....each, | \$0.60 |
| Harborless. | Oxidized copper..... " | .60 |
| Hardened. | Polished bronze..... " | .60 |
| Hardening. | Bower-Barff | .60 |

NOTE:—All buttons on this page have loose backs.



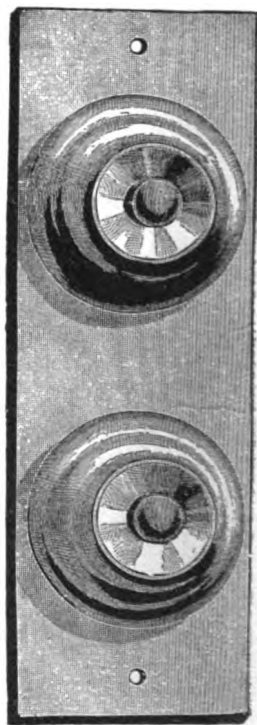
No. 198.
Size, $3\frac{3}{4} \times 2$.

| Trade Word. | | Price. |
|-------------|---------------------------|--------|
| Hardest. | Oxidized copper.....each, | \$0.55 |
| Hardihood. | Oxidized silver..... " | .60 |
| Hardly. | Sanded copper..... " | .60 |
| Hardness. | Polished bronze..... " | .55 |
| Hardship. | Bower-Barff..... " | .55 |



No. 197.
Size, $3 \times 1\frac{1}{4}$.

| Trade Word. | | Price. |
|-------------|-------------------------|--------|
| Harelip. | Sanded copper.....each, | \$0.50 |
| Harelipped. | Oxidized copper..... " | .55 |
| Harem. | Old copper..... " | .50 |
| Harecot. | Polished bronze..... " | .50 |
| Harlequin. | Bower-Barff | .50 |



No. 201 and No. 202.

No. 201. Push.

| Trade Word ^d . | | Price. |
|---------------------------|----------------------|--------|
| Harlot. | Sanded copper..... | \$1.00 |
| Harm. | Oxidized copper..... | 1.00 |
| Harmed. | Polished bronze..... | 1.00 |
| Harmful. | Bower-Barff..... | 1.00 |

No. 202.
With name plate.

| Trade Word. | | Price. |
|-------------|----------------------|--------|
| Neatland. | Sanded copper..... | \$1.20 |
| Nectarine. | Oxidized copper..... | 1.20 |
| Needer. | Polished bronze..... | 1.20 |
| Needlessly. | Bower-Barff..... | 1.20 |

This push can be furnished for any number of stories desired at proportionate prices.

HOUSE GOODS. PUSH-BUTTONS.

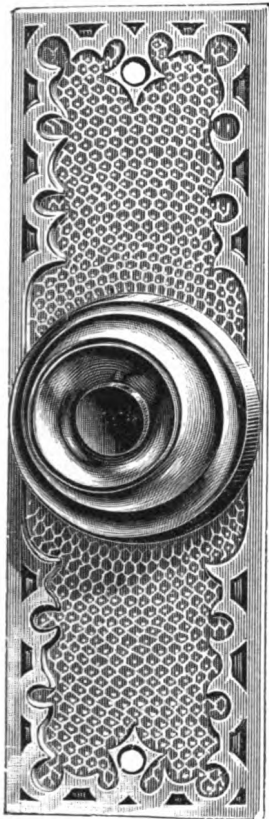
NOTE.—All buttons on this page have
screw caps.

No. 194.

| Trade Word. | Size, $4\frac{1}{4} \times 1\frac{1}{4}$. | Price. |
|-------------|--|--------|
| Leak. | Bronze each, | \$0.50 |
| Leaking. | Dark inlaid " | .50 |
| Textile. | Oxidized copper... " | .50 |
| Textorial. | Bower-Barff..... " | 50 |

No. 215.

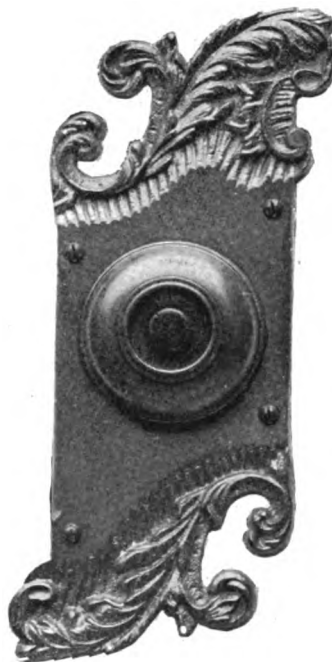
| | Size, $6\frac{1}{2} \times 2\frac{1}{4}$. | |
|-----------|--|--------|
| Learning. | Bronze each, | \$1.00 |
| Left. | Oxidized copper... " | 1.00 |
| Leased. | Bower-Barff..... " | 1.00 |
| Texture. | Sand copper..... " | 1.00 |
| Thankful. | Dark inlaid..... " | 1.00 |



No. 194.



No. 215.



No. 214.

No. 196.

| Trade Word. | Size, $4\frac{1}{4} \times 1\frac{1}{4}$. | Price. |
|-------------|--|--------|
| Learn. | Bronze each, | \$0.50 |
| Learned. | Oxidized copper... " | .50 |
| Thankless. | Bower-Barff..... " | .50 |

No. 217.

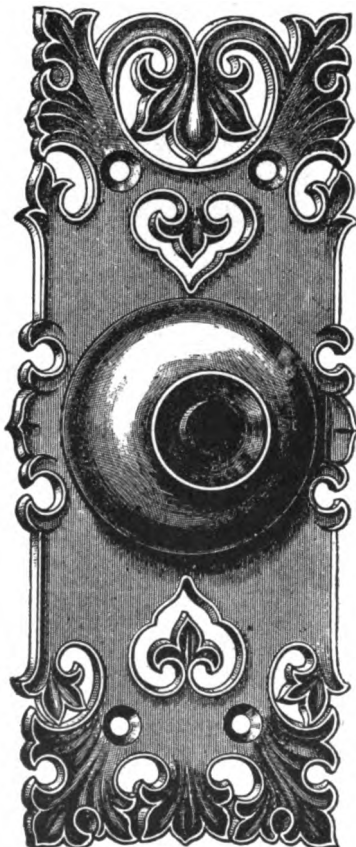
| | Size, $6\frac{1}{4} \times 2\frac{1}{4}$. | |
|------------|--|--------|
| Learner. | Bronze each, | \$1.00 |
| Leaveless. | Oxidized copper... " | 1.00 |
| Leavening. | Bower-Barff..... " | 1.00 |
| Thatcher. | Sand copper..... " | 1.00 |

No. 214.

| | Size, $7 \times 3\frac{1}{4}$. | |
|-------------|---------------------------------|--------|
| Leasehold. | Bronze each, | \$1.20 |
| Leash. | Bower-Barff..... " | 1.20 |
| Thatching. | Oxidized copper... " | 1.20 |
| Theater. | Sand copper..... " | 1.20 |
| Theatrical. | Dark inlaid..... " | 1.20 |



No. 196.

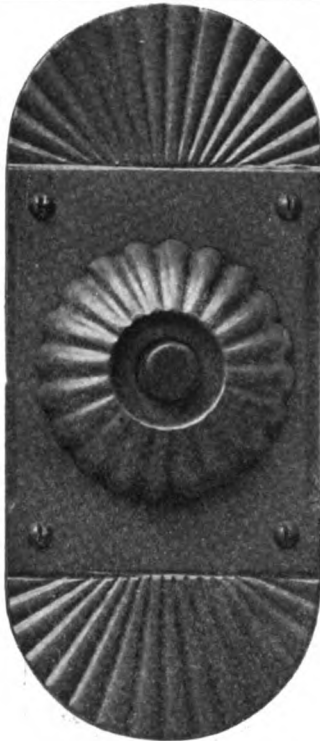


No. 217.

HOUSE GOODS.

PUSH-BUTTONS.

Cast bronze. Loose back.



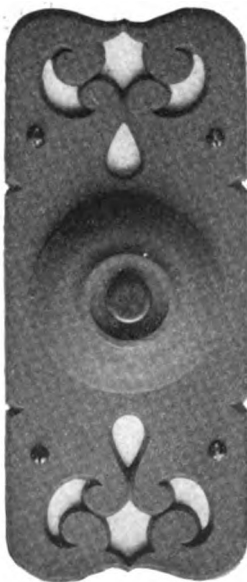
No. 211.
Size $5\frac{3}{4} \times 2\frac{1}{4}$ inches.
Trade Word. Price.
Theism. Polished bronze, each, \$0.80
Theistic. Oxidized copper, " .80
Theobroma. Dark inlaid, " .80
Theocracy. Bower-Barff, " .80



No. 213.
Size $5\frac{3}{4} \times 2\frac{1}{4}$ inches.
Trade Word. Price.
Theocratic. Polished bronze, each, \$0.85
Theodolite. Oxidized copper, " .85
Theognist. Dark inlaid, " .85
Theologian. Bower-Barff, " .85



No. 216.
Size $5\frac{3}{4} \times 2\frac{1}{4}$ inches.
Trade Word. Price.
Theomachy. Polished bronze, each, \$0.90
Theorist. Oxidized copper, " .90
Theorizing. Dark inlaid, " .90
Thermettic. Bower-Barff, " .90



No. 218.
Size $6 \times 2\frac{1}{4}$ inches.
Trade Word. Price.
Thesis. Polished bronze, each, \$0.90
Theurgic. Oxidized copper, " .90
Thicket. Dark inlaid, " .90
Thickhead. Bower-Barff, " .90



No. 219.
Trade Word. Price.
Thickness. Polished bronze, each, \$1.30
Thickskin. Oxidized copper, " 1.30
Thinking. Dark inlaid, " 1.30
Thinly. Bower-Barff, " 1.30



No. 220.
Size $6\frac{1}{2} \times 2\frac{1}{4}$ inches.
Trade Word. Price.
Thinness. Polished bronze, each, \$1.10
Thirst. Oxidized copper, " 1.10
Thirstly. Dark inlaid, " 1.10
Thistle. Bower-Barff, " 1.10

HOUSE GOODS.

PRESSED METAL PUSHES.

Open back.



No. 153.
Size $5\frac{1}{4} \times 2$ inches.

| Trade Word. | | Price. |
|-------------|------------------------|--------|
| Thither. | Polished bronze, each, | \$0.50 |
| Thoracic. | Oxidized copper, " | .50 |
| Thornback. | Dark inlaid, " | .50 |
| Thornless. | Bower-Barff, " | .50 |



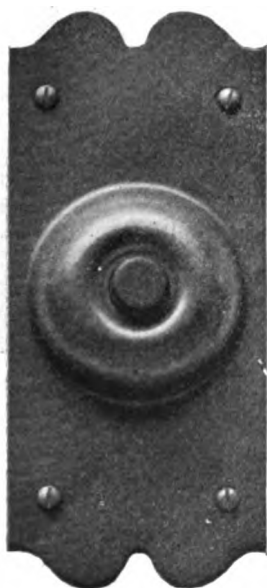
No. 154.
Size $4\frac{1}{4} \times 2$ inches.

| Trade Word. | | Price. |
|-------------|------------------------|--------|
| Thorny. | Polished bronze, each, | \$0.40 |
| Thoughtful. | Oxidized copper, " | .40 |
| Thraldom. | Dark inlaid, " | .40 |
| Thrashing. | Bower-Barff, " | .40 |



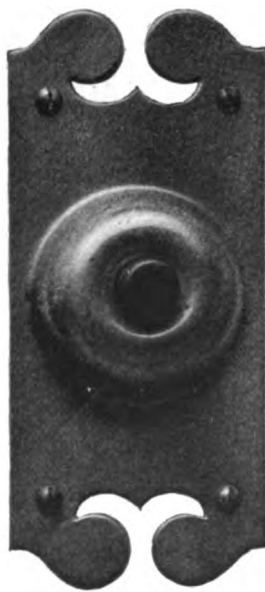
No. 156.
Size 4×2 inches.

| Trade Word. | | Price. |
|-------------|------------------------|--------|
| Threadbare. | Polished bronze, each, | \$0.40 |
| Threader. | Oxidized copper, " | .40 |
| Threatful. | Dark inlaid, " | .40 |
| Threshold. | Bower-Barff, " | .40 |



No. 160.
Size $4\frac{1}{4} \times 2$ inches.

| Trade Word. | | Price. |
|-------------|------------------------|--------|
| Thrift. | Polished bronze, each, | \$0.38 |
| Thrillless. | Oxidized copper, " | .38 |
| Thriftyly. | Bower-Barff, " | .38 |



No. 161.
Size $4\frac{1}{4} \times 2$ inches.

| Trade Word. | | Price. |
|-------------|------------------------|--------|
| Thrill. | Polished bronze, each, | \$0.39 |
| Thrilling. | Oxidized copper, " | .39 |
| Thriving. | Bower-Barff, " | .39 |

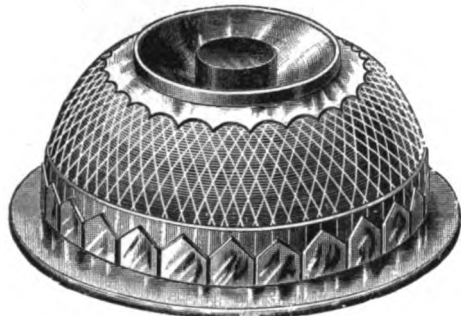


No. 158.
Size 4×2 inches.

| Trade Word. | | Price. |
|-------------|------------------------|--------|
| Throbbing. | Polished bronze, each, | \$0.39 |
| Throne. | Oxidized copper, " | .39 |
| Thronging. | Bower-Barff, " | .39 |



No. 182.



No. 187.



No. 185.



No. 186.

| Trade Word. | No. | Price. |
|-------------|--------------|-------------------------|
| Throttle. | 191. Convex. | bronze.....each, \$0.40 |
| Throwster. | " " | dark inlaid... " .40 |
| Thrush. | " " | Bower-Barff. " .40 |
| Thrusting. | " " | oxidized copper " .40 |
| Thumb. | 192. Flat, | bronze..... " .40 |
| Thumbkin. | " " | dark inlaid... " .40 |
| Thumper. | " " | Bower-Barff.. " .40 |

HOUSE GOODS. PUSH-BUTTONS.

No. 182 Cast (Loose Back).

| Trade Word. | 2 1/4 inches diameter. | Price. | Per dozen, in dozen lots. |
|-------------|-----------------------------|--------|---------------------------|
| Hearse. | Polished bronze..... each, | \$0.25 | \$2.75 |
| Hearsay. | Dark inlaid..... " .25 | | 2.75 |
| Hearken. | Oxidized copper " .25 | | 2.75 |

No. 187 Cast (Screw Cap).

| Trade Word. | 2 1/4 inches diameter. | Price. | Per dozen, in dozen lots. |
|-------------|----------------------------|--------|---------------------------|
| Lash. | Bronze..... each, | .35 | 3.75 |
| Lastage. | Oxidized copper..... " .35 | | 3.75 |
| Lath. | Bower-Barff " .35 | | 3.75 |
| Tiffin. | Dark inlaid..... " .35 | | 3.75 |

No. 185 Cast (Screw Cap).

| Trade Word. | 2 1/4 inches diameter. | Price. | Per dozen, in dozen lots. |
|-------------|--------------------------|--------|---------------------------|
| Tightness. | Bronze..... each, | .35 | 3.75 |
| Lavement. | Oxidized copper... " .40 | | 3.75 |
| Tillage. | Bower-Barff..... " .35 | | 3.75 |

No. 186 Cast (Screw Cap).

| Trade Word. | 2 1/4 inches diameter. | Price. | Per dozen, in dozen lots. |
|-------------|--------------------------|--------|---------------------------|
| Leach. | Bronze.... each, | .35 | 3.75 |
| Lavished. | Oxidized copper... " .35 | | 3.75 |
| Lawday. | Bower-Barff..... " .35 | | 3.75 |
| Tillering. | Dark inlaid..... " .35 | | 3.75 |



Nos. 190-193, Size 3 1/4 x 1 1/4.



Nos. 191-192, Size 3 1/4 x 1 1/4.

| Trade Word. | No. | Price. |
|-------------|--------------|------------------------------|
| Thumping. | 192. Flat, | oxidized copper each, \$0.40 |
| Thundering. | 190. Convex, | bronze..... " .40 |
| Thwarted. | " " | oxidized copper " .40 |
| Ticketed. | " " | Bower-Barff.. " .40 |
| Tickle. | 193. Flat, | bronze..... " .40 |
| Tidesman | " " | oxidized copper " .40 |
| Tidying. | " " | Bower-Barff... " .40 |

HOUSE GOODS.

PUSH-BUTTONS.



No. 180. 2¼ in. diameter.



No. 184. 2¼ in. diameter.



No. 163. 2¼ in. diameter.



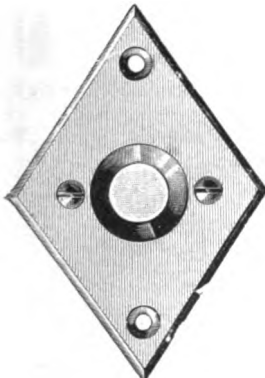
No. 165. 2¼ in. diameter.



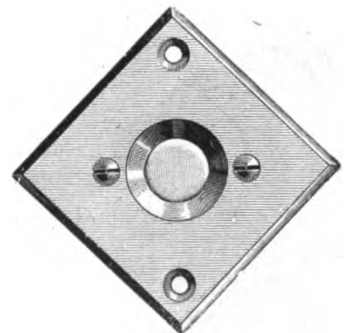
No. 164. 2¼ in. diameter.



No. 166. 2¼ in. diameter.



No. 160.



No. 159.



No. 180. Cast, loose back, 2¼ in. diameter.

| Trade Word. | Price. | Price in doz. lots. |
|----------------------------|--------|---------------------|
| Tilting. Bronze.....each, | \$0.25 | Per doz., \$2.75 |
| Timbered. Ox. copper..... | .25 | " 2.75 |
| Timbrel. Dark inlaid..... | .25 | " 2.75 |
| Timeless. Bower-Barff..... | .25 | " 2.75 |

No. 184. Cast, loose back, 2¼ inch diameter.

| Trade Word. | Price. | Price in doz. lots. |
|----------------------------|--------|---------------------|
| Timidity. Bronze.....each, | \$0.25 | Per doz., \$2.75 |
| Timidness. Ox. copper..... | .25 | " 2.75 |
| Timorous. Dark inlaid..... | .25 | " 2.75 |
| Timorsome. Bower-Barff... | .25 | " 2.75 |

Stamped Bronze Pushes.

Stamped from heavy sheet bronze under great pressure, finely finished with black fibre backs, German silver contact springs.

No. 163.

| Trade Word. | Price. | Price in doz. lots. |
|------------------------------|--------|---------------------|
| Tinctorial. Bronze.....each, | \$0.18 | Per doz., \$2.00 |
| Tincture. Ox. copper..... | .18 | " 2.00 |
| Tinder. Bower-Barff..... | .18 | " 2.00 |

No. 164.

| Trade Word. | Price. | Price in doz. lots. |
|-----------------------------|--------|---------------------|
| Tinfolly. Bronze.....each, | \$0.18 | Per doz., \$2.00 |
| Tingling. Ox. copper..... | .18 | " 2.00 |
| Tinkering. Dark inlaid..... | .18 | " 2.00 |
| Tinkler. Bower-Barff..... | .18 | " 2.00 |

No. 165.

| Trade Word. | Price. | Price in doz. lots. |
|-----------------------------|--------|---------------------|
| Tinman. Bronze.....each, | \$0.17 | Per doz., \$1.80 |
| Tinsel. Ox. copper..... | .17 | " 1.80 |
| Tinseling. Dark inlaid..... | .17 | " 1.80 |
| Tipstily. Bower-Barff..... | .17 | " 1.80 |

No. 166.

| Trade Word. | Price. | Price in doz. lots. |
|----------------------------|--------|---------------------|
| Tipstaff. Bronze.....each, | \$0.17 | Per doz., \$1.80 |
| Tipstoe. Ox. copper..... | .17 | " 1.80 |
| Tirade. Bower-Barff..... | .17 | " 1.80 |

Diamond Metal Push.

No. 160.

| Trade Word. | Price. | Price in doz. lots. |
|---|--------|---------------------|
| Legislating. Size, 2x3 inches, nickel-plated..... | \$0.45 | |

Square Metal Push.

No. 159.

| Trade Word. | Price. | Price in doz. lots. |
|--|--------|---------------------|
| Lender. Size 1½ x 1½ in., plain, nickel-plated.. | \$0.45 | |

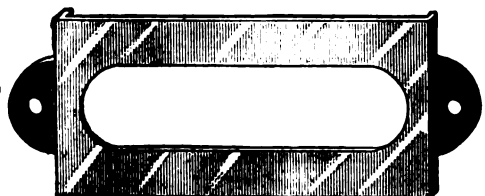
Bronze Name Plates.

Small.

| Trade Word. | Price. | Price in doz. lots. |
|----------------------|--------|---------------------|
| Leather. Each \$0.15 | | Per doz., \$1.50 |

Large Size.

| Trade Word. | Price. | Price in doz. lots. |
|--------------------------|--------|---------------------|
| Leatherless. Each \$0.25 | | Per doz., \$2.50 |

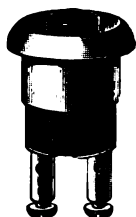


HOUSE GOODS.

PUSH-BUTTONS.

**Desk Push.**

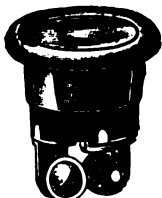
| Trade Word. | Price. |
|-----------------------------|--------|
| Tiredness. Each | \$0.20 |
| Per doz. in doz. lots, 2.20 | |



Cut full size.

Midget Push.

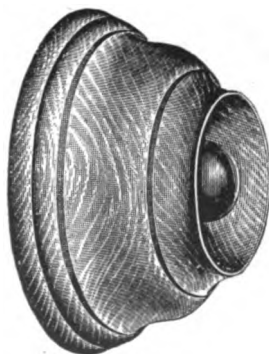
| Trade Word. | Price. |
|----------------------------------|--------|
| Lobby. "Style C" each, | \$0.20 |
| Per doz. in doz. lots . . | 2.20 |



Cut full size.

Midget Push.

| Trade Word. | Price. |
|---------------------------------------|---------|
| Loaves. "Junior" each, | \$ 0.30 |
| Per hundred in hundred lots | 27.00 |

**Wood Pushes.**

Finely finished.

| Trade Word. | Price Each. | Per 100 in 100 lots. |
|------------------------------|-------------|----------------------|
| Laundry. Oak | \$0.10 | \$8.50 |
| Laureate. Ash | .10 | 8.50 |
| Laurel. Cherry | .10 | 8.50 |
| Lava. Walnut | .10 | 8.50 |
| Lavation Cocobolo | .20 | ... |
| Lavatory. Rosewood | .20 | ... |

Return Call Wood Pushes.

| Trade Word. | Price. |
|---|--------|
| Laurin. In oak, ash, cherry or walnut . . . each, | \$0.20 |



Cut full size.

Midget Pattern.

| Trade Word. | Finish. | Price. |
|----------------------------|---------|--------|
| Legally. Oak | | \$0.20 |
| Legate. Cherry | | .20 |
| Legatee. Walnut | | .20 |
| Legation. Rubber | | .40 |



Cut half actual size.

Pear Shape Pushes.

Plain wood.

| Trade Word. | Price Each. | Per doz. in doz. lots. |
|-------------------------------|-------------|------------------------|
| Legible. Oak | \$0.20 | \$2.00 |
| Legibly. Cherry | .20 | 2.00 |
| Legion. Walnut | .20 | 2.00 |
| Legislate. Rosewood | .30 | 3.00 |



Cut half actual size.

Pear Shape Pushes.

Ornamental wood.

| Trade Word. | Price Each. |
|-------------------------------|-------------|
| Facilitate. Oak | \$0.35 |
| Facility. Cherry | .35 |
| Facing. Walnut | .35 |
| Facsimile. Rosewood | .40 |

Wood Push.

Acorn shape.



Cut half actual size.

| Trade Word. | Price Each. |
|------------------------------|-------------|
| Transverse. Walnut | \$0.50 |
| Faction. Oak | .50 |

HOUSE GOODS.

PUSH-BUTTONS.

Table Push.



No. 3. Dining Room Combination.

Cuts are half size.

| Trade Word. | | Price. |
|-------------|--|---------|
| Faction. | No. 3. Dining room combination complete, including combination floor key, push and 6 ft. connecting cord.....each, | \$ 1.50 |
| | Per dozen..... | \$15.60 |
| Factionist. | Table push only.....each, | .35 |
| Factionist. | Cord.....per yard, | .25 |
| Tiresome. | Combination floor key.....each, | .55 |
| | Per dozen..... | 6.00 |
| Needlework. | Plain floor tread or push.....each, | .40 |
| | Per dozen..... | 4.00 |

Combination Floor Key.



The Dandy Floor Push.

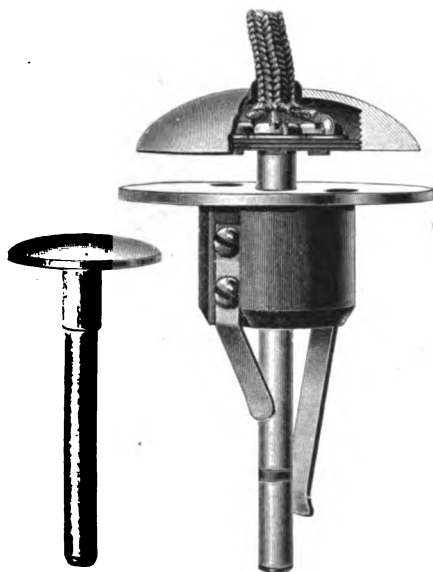
All the weak points found in ordinary floor pushes have been eliminated in this new push, and points of excellence added which make it the most efficient ever produced. Its special advantages are that it is impossible to break the top, for owing to its rounding shape it allows a table leg, coming in contact with it, to roll over without doing damage.

If the cord is pulled hard it will not break the small conducting wires, because a knot can be made in the flexible cord under the cap.

Only one hole is required in the floor plate for both plugs, which in use pass through an eyelet that has been pressed through and easily fastened in the carpet or rug, without breaking the strands. The eyelet used in the rug enables one to easily find the floor push plate, when the rug is replaced after cleaning. The portion inserted in the floor is securely held, as it exactly fills the hole. The distance between floor plate and top is adjustable, and a rubber bushing is used where cord passes through the cap.

A trial means a continuance of their use.

| Trade Word. | Price. |
|--|--------|
| Pantile. Floor push, including plugs and eyelet..... | \$1.50 |
| Pantier. Tool for inserting eyelet..... | .10 |



Five-sixths size. Cap cut away, showing connections.

Movable Foot Push.

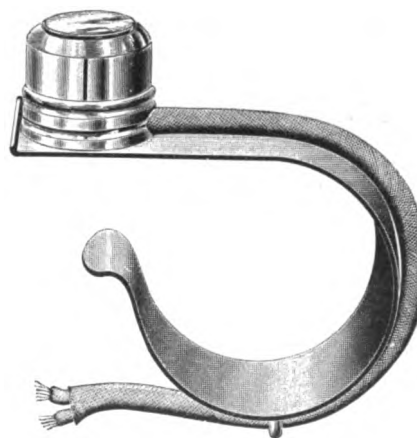


Base, 3 inches diameter.

Many fitters prefer this style of push to those made to be attached to the table, as it can be more easily moved from place to place and the cord is not as liable to be broken. The metal portion of the push is nickel plated and mounted on a finely finished wood base. It is very easy to connect up.

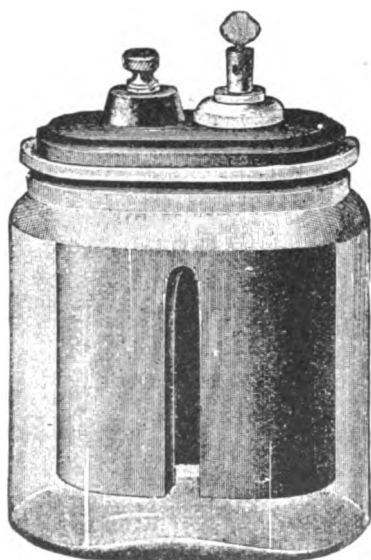
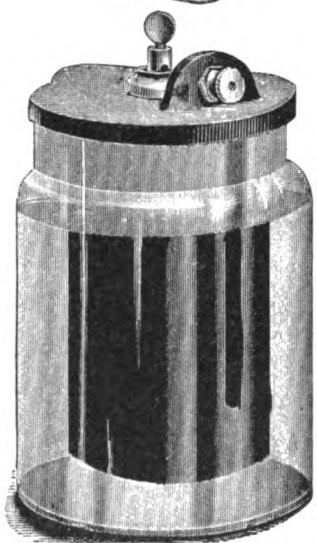
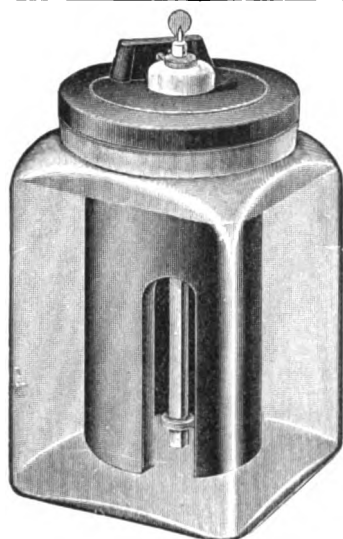
| Trade Word. | Price. |
|--------------------------------------|--------|
| Pantile. Movable foot push.....each, | \$0.75 |

Metal Table Clamp.



Five-sixths size.

| Trade Word. | Price. |
|---|--------|
| Panther. Complete, with pearl center desk push, nickel plated.....each, | \$0.55 |



HOUSE GOODS.

BATTERIES.

Carbon Cylinder Battery

For open circuit work.

The negative element in these batteries is indestructible and is molded in one piece, forming a perfect seal for the battery and preventing evaporation or the climbing of salts.

The zinc is suspended by a porcelain insulator through the center of the carbon cylinder.

The zinc furnished with these batteries is made from the best rolled sheet.

Square Central Carbon Battery.

Our standard.

| Trade Word. | Price. | Price. in doz. lots. | Price. in lots of 50. |
|-------------------------------------|--------|-------------------------|--------------------------|
| Transgress. Cell complete.....each. | \$0.44 | each, \$0.40 | each, \$0.36 |
| Leveled. Carbon cup....." | .30 | " .25 | " .22 |
| Leviabie. Glass jar....." | .18 | " .16 | " .15 |
| Levirate. Zinc....." | .06 | " .05 | " .04½ |
| Leyden. Sal Ammoniac, per pkg.." | .10 | " .09 | " .08 |

Extra B. B. Carbon Cylinder Battery.

| Trade Word. | Price. | Price in doz. lots. | Price in lots of 50. |
|--|--------|------------------------|-------------------------|
| Keelson. Cell complete.....each. | \$0.44 | each, \$0.40 | each, \$0.36 |
| Kendal. Carbon cup....." | .30 | " .25 | " .22 |
| Tragedy. Glass jar....." | .18 | " .16 | " .15 |
| Tragical. Zinc....." | .06 | " .05 | " .04½ |
| Trailing. Sal Ammoniac, per package, " | .10 | " .09 | " .08 |

Oval Carbon Battery.

| Trade Word. | Price. | Price in doz. lots. |
|--|--------|------------------------|
| Keel. Cell complete.....each. | \$0.50 | each, \$0.45 |
| Keelage. Carbon cup....." | .32 | " .28 |
| Keeled. Glass jar....." | .20 | " .18 |
| Keelhau. Zinc....." | .06 | " .05 |
| Keelhauling. Sal Ammoniac, per package....." | .10 | " .09 |

HOUSE GOODS.

BATTERIES.

Mesco Dry Battery.

For call bells, annunciators, burglar alarms, telephones, medical apparatus, the laboratory and all open-circuit use.

| Trade Word. | Price. |
|--|--------|
| Paragon. Mesco dry battery each, | \$0.40 |
| Per dozen, in dozen lots..... | .36 |
| Per hundred, in hundred lots | .30 |



Cut half size.

Nungesser Dry Battery.

Form 12.

Every battery is fully tested before leaving the factory and guaranteed free from local action or deterioration while on open-circuit.

| Trade Word. | Price. |
|---|--------|
| Factor. Nungesser dry battery, form 12. each, | \$2.00 |
| In dozen lots..... | 1.50 |
| In lots of 50..... | 1.20 |



Size, 2 3/4 x 3 1/4 x 7 1/4 in. high.

O. K. Non-Polarizing Dry Battery.

For annunciators, telephones, door bells, gas lighting, gas engines, slot machines and all other kinds of work for which open circuit batteries are best adapted.



Type D.



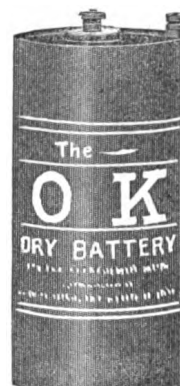
Type E.



Type C.



Type S.



Type B.

| | Type B. | Type S. | Type C. | Type E. | Type D. |
|-------------------|-------------|-----------------|------------|-----------|------------|
| Dimension | 3x7 | 2x2 5/8 x 6 1/2 | 2 1/2 x 6 | 1 3/4 x 4 | 1 1/2 x 4 |
| Weight | 3.06 lbs. | 2 1/2 lbs. | 1.8 lb. | 12 oz. | 8 1/2 oz. |
| Voltage | 1.55 | 1.55 | 1.5 | 1.5 | 1.5 |
| Internal Resist.. | 0.15 Ohm | 0.2 Ohm | 0.2 Ohm | 0.3 Ohm | 0.3 Ohm |
| Amperage | 7 1/2 to 10 | 6 to 8 | 5 to 7 1/2 | 3 to 5 | 2 1/2 to 4 |

| Trade Word. | | Price. | Price. | Price. |
|-------------|--------|--------------|-------------------------------|----------------------------|
| Factorage. | Type B | each, \$0.40 | In doz. lots each, \$0.82 1/2 | In lots of 50 each, \$0.75 |
| Factory. | " S. | .80 | .72 1/2 | .65 |
| Factatem. | " C | .60 | .55 | .50 |
| Faculty. | " E | .55 | .50 | .45 |
| Transmate. | " D | .50 | .45 | .40 |

HOUSE GOODS.

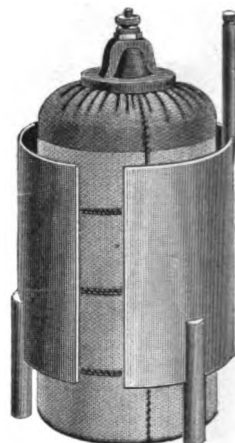


SAMSON SEMI-DRY BATTERY.

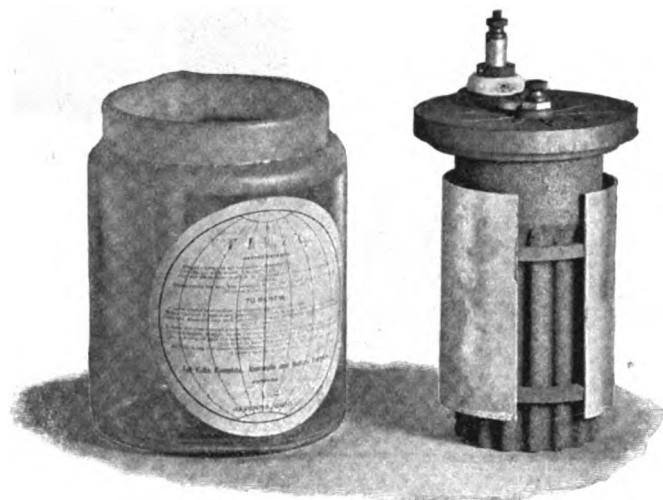
This cell fulfills the requirement for a portable open circuit battery, possessing great initial strength and long life. Contained in a porcelain jar not easily broken, into which the elements are sealed, preventing the possibility of spilling. Adapted for gasoline engine launch work, operating slot machines and for similar work requiring hard battery service.

Size of jar, $4\frac{1}{2} \times 7\frac{1}{2}$ inches, extreme height, 9 inches.

| Trade Word. | Price each. | Price in doz. lots. |
|--|-------------|---------------------|
| Fadeless. Samson semi-dry battery..... | \$3.00 | each, \$2.70 |



Elements.



CENTRAL NO. 2 BATTERY.

Carbon cup has removable screw cap enabling fresh depolarizing compound to be readily inserted. Furnished with heavy cylindrical zinc, all mounted on standard Leclanche battery jar. Especially adapted to telephone work. E. M. F. $1\frac{1}{2}$ volts with current output of 12 amperes plus.

| Trade Word. | Price each. | Each in doz. lots. | Each in lots of 50. |
|--------------------------------------|-------------|--------------------|---------------------|
| Tithable. Complete.... | \$0.90 | \$0.80 | \$0.75 |
| Tithing. Carbon only.. | .50 | .45 | .40 |
| Titillate. Zinc..... | .25 | .22 | .20 |
| Titlark. Jar..... | .15 | .14 | .12 |
| Titmouse. Sal Ammoniac, per package. | .10 | .09 | .08 |



Cell complete.

THE "GONDA" CELL.

| Trade Word. | Price. |
|---------------------------------------|------------------|
| Keen. Cell complete..... | each, \$1.50 |
| Kind. Gondas, with rubber bands..... | per pair, .90 |
| Kinate. Glass jar..... | each, .30 |
| Kinded. Carbon, with connections..... | " .30 |
| Kist. Zinc, " "..... | " .15 |
| Kipper. Jar cover..... | " .20 |
| Kitcat. Rubber bands..... | per pair, .10 |
| Kemelin. Sal Ammoniac..... | per package, .10 |



Gondas, carbon, zinc and jar cover.

HOUSE GOODS.

BATTERIES.

THE SAMSON BATTERY.



No. 1.
Size of jar, $7 \times 3 \frac{1}{2} \times 3 \frac{1}{2}$ inches.
New style.



No. 2. Improved.
Size of jar, $7 \frac{1}{2} \times 4 \frac{1}{2} \times 4 \frac{1}{2}$ inches.
New style.

The principal parts of this battery consist of a cylindrical carbon surrounded by a circular zinc. It has been fully demonstrated that this arrangement of elements will give the best results for general use. The carbon is made in France, from a special grade of material, rendered, by a patent process, more porous than any other battery carbon ever constructed. It is corrugated, presenting a large surface to the zinc. The depolarizing compound is placed inside of this carbon, which is hollow. It is this close proximity of the depolarizing agent and the exceptionally porous carbon which impart to the battery its remarkable recuperating qualities. The zinc is made of the purest commercial grade and is well amalgamated. The ability of the Samson battery to endure long periods of hard work has made it very popular with gas engine companies, railway companies, telephone companies, etc. For special work, requiring frequent contacts, we believe it can be depended upon to do better work than any other open circuit battery in the world.

The No. 1, or small cell, has an E. M. F. of 1.44 volts; internal resistance, .14 ohm; current on short circuit is 10 amperes. It is adapted for call bell, annunciator, burglar alarm, watchman's clockwork, etc.

The No. 2, improved or large cell, has an E. M. F. of 1.47 volts; internal resistance, .11 ohm; current on short circuits is 13.4 amperes, and is, perhaps, better adapted for railroad signal and gas engine work, electric gas lighting and telephone service.

The improvement consists mainly in joining the carbon, zinc and cover in such a way that it is impossible for a short current to occur between the elements when inside of the jar.

No. 1 Samson.

| Trade Word. | | Price List. | | | |
|-------------|-------------------------------------|-------------|-------------|-------------|-------------|
| | | Each. | Lots of 12. | Case of 25. | Lots of 50. |
| Munch. | Cell complete..... | \$1.40 | \$1.30 | \$1.26 | \$1.20 |
| Muncher. | Cylinder zinc..... | .24 | .22 | .20 | .18 |
| Munching. | Carbon vase..... | .90 | .86 | .80 | .76 |
| Mumps. | Glass jar..... | .24 | .22 | .20 | .18 |
| Fagot. | Rubber cover..... | .12 | .11 | .10 | .10 |
| Transpose, | Rubber plugs, per set of three..... | .10 | .09 | .08 | .08 |

No. 2 Samson Improved.

| | | | | | |
|----------|--------------------|--------|--------|--------|--------|
| Failed | Cell complete..... | \$1.60 | \$1.50 | \$1.46 | \$1.40 |
| Failing. | Cylinder zinc..... | .30 | .24 | .22 | .20 |
| Failure. | Carbon vase..... | 1.10 | 1.06 | 1.00 | .96 |
| Fain. | Glass jar..... | .25 | .22 | .20 | .20 |
| Faintly. | Rubber cover..... | .12 | .11 | .10 | .10 |

HOUSE GOODS.

BATTERIES.



The No. 2 "Special" Samson Battery.

The special Samson is adapted for service where the large current delivered by the regular style is not required but the best possible recuperative ability is necessary. It has the same dimensions and voltage as the No. 2. A zinc $5\frac{1}{4}$ inches long, 1 inch wide and $\frac{1}{4}$ inch thick, made of Carr metal (which is an alloy of zinc and mercury), is used with this form. It develops a current of about five amperes.

This battery is used by a number of railway companies and is preferred by some for use with telephone transmitters.

Price List.

| Trade Word. | | Each. | Lots of 12. | Case of 25. | Lots of 50. |
|-------------|--------------------|--------|-------------|-------------|-------------|
| Faintness. | Cell complete..... | \$1.60 | \$1.50 | \$1.46 | \$1.40 |
| Faints. | Carbon vase..... | 1.10 | 1.06 | 1.00 | .96 |
| Fair. | Glass jar..... | .25 | .22 | .20 | .20 |
| Fairest. | Rubber cover..... | .12 | .11 | .10 | .10 |
| Fairly. | Zinc..... | .30 | .24 | .22 | .20 |

Renewing Depolarizer.

To renew depolarizer of the Samson carbon is a quick, easy, inexpensive and thoroughly practical operation. Carbons short-circuited from a few hours to a day do not require treating, as a rest for a few hours generally brings them back to their original strength; but after long and steady use or extended short circuits, the depolarizing properties of the manganese are expended and the Samson carbon then depends solely upon its porosity for depolarization.

There are two methods by which the hydrogen or polarizing gas may be expelled from the carbon, one by standing the carbon in boiling water and the other by heating over a Bunsen burner. If the former method is used, first remove the binding post and immerse in the water only to the point where the fluted lower portion joins the top. With the latter method the fluted portion is held over the flame for about three minutes, being careful not to heat the top so that the paraffine in it is melted. Using either method the plug which retains the depolarizer will become sufficiently softened to be easily removed, allowing the old depolarizing compound to be removed. The carbon is then refilled with a mixture of two thirds manganese, gray crystals, size No 3, and one third pea carbon, size No. 2 (by weight), and the hole replugged with a cork stopper $1\frac{1}{4}$ inch diameter and $\frac{1}{2}$ inch thick. Illustration shows method of replugging the carbon.

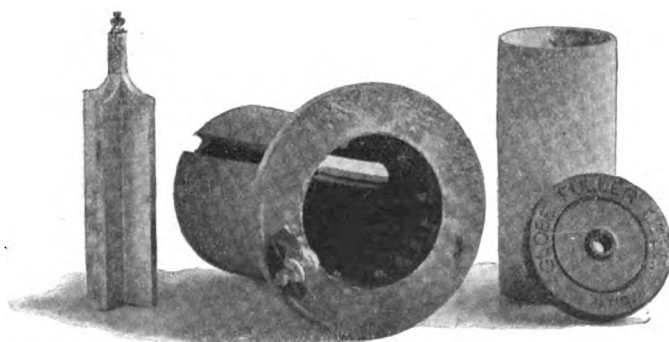
If either of the above methods is strictly followed the result will be a carbon practically as good as new. We would suggest collecting a number of the short-circuited carbons and refilling them all at one operation.



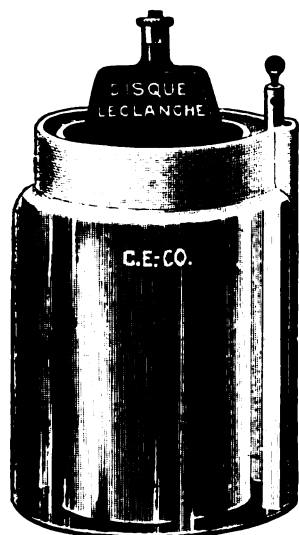
| Trade Word. | | Price. |
|-------------|---------------------------------|---------------------|
| Fairness. | Depolarizing compound..... | per package, \$0.15 |
| Transom. | Cork for replugging carbon..... | each, .02 |

Improved Fuller Battery.

Most forms of Fuller batteries have been complicated with many parts, difficult to keep in order and expensive to maintain. We have designed the form here with illustrated to supply the demand for a simple convenient arrangement of the Fuller elements. We have sold a great number of these to be used with long distance telephones, battery motors, nickel and other electro-plating outfits, incandescent lamps, laboratory work and other places requiring considerable power. The low internal resistance and strong current make the battery specially desirable for exacting service. The zinc is cast in combination with mercury, so that it at all times presents a clean surface to the action of the exciting fluid. E. M. F. 2 volts.



| Trade Word. | | Price. | Price. |
|-------------|------------------------|---------------|--------------|
| | | In doz. lots. | |
| Parole. | Battery, complete..... | each, \$1.70 | each, \$1.50 |
| Parotid. | Carbon cylinder..... | .80 | .70 |
| Paroxysm. | Porous cup..... | .30 | .25 |
| Parrot. | Zinc..... | .40 | .36 |
| Parry. | Glass jar, 6 x 8..... | .35 | .30 |
| Faithful. | Covers..... | .15 | .12 |



HOUSE GOODS.

BATTERIES.

The Leclanche Disque Battery.

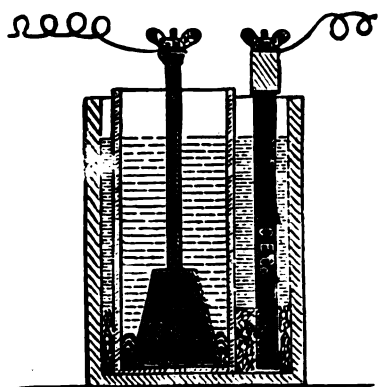
| Trade Word. | | Price Each. | Price Each in Doz. Lots. |
|-------------|--|-------------|--------------------------|
| Lace. | Cell complete..... | \$0.60 | \$0.55 |
| Lacerate | Porous cup | .40 | .36 |
| Lacerated. | Glass jar | .15 | .14 |
| Lacerating. | Zinc | .06 | .05 |
| Laceration. | Sal Ammoniac, in bag, best imported..... | .10 | .09 |

Fuller Mercury Bichromate Battery.

| Trade Word. | | Each. |
|-------------|-------------------------------------|--------|
| Kilt. | No. 1 battery, 5 x 7, complete..... | \$1.00 |
| Kimbo. | No. 2 battery, 6 x 8, complete..... | 1.50 |

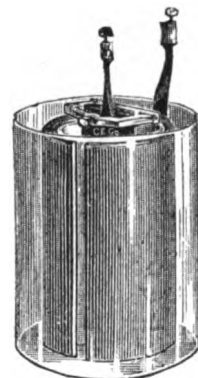
SUPPLIES.

| | | |
|-----------|-------------------------------------|-----|
| Pamphlet. | Zinc for No. 1 | .22 |
| Pampre. | Zinc for No. 2 | .32 |
| Panary. | Carbon for No. 1 | .35 |
| Pancake. | Carbon for No. 2 | .80 |
| Panch. | Connectors for No. 1 or No. 2 | .10 |
| Pandect. | Porous cup, No. 1 | .36 |
| Pandemic. | Porous cup, No. 2 | .40 |
| Pander. | Glass jar, 5 x 7, No. 1 | .30 |
| Panderly. | Glass jar, 6 x 8, No. 2 | .35 |



Bunsen Battery.

| SIZES. | 1 Pt. | 1 Qt. | 2 Qts. | 1 Gal. |
|---------------------------|--------|--------|--------|--------|
| Cell, complete..... | \$1.80 | \$2.20 | \$2.80 | \$5.00 |
| Carbon | .16 | .16 | .40 | .80 |
| Carbon connection | .30 | .30 | .30 | 1.00 |
| Carbon clamp | .16 | .16 | .24 | .50 |
| Glass jar | .30 | .40 | .50 | .60 |
| Porous cup | .24 | .26 | .30 | .50 |
| Zinc and connection | .60 | .80 | 1.00 | 1.60 |



Battery Directions.

FULLER MERCURY BICHROMATE BATTERY.—Make a paste by mixing up pulverized bichromate of potash with strong sulphuric acid in about equal parts by weight. Put about ten ounces of this paste into the outside jar, pour over it two or three ounces of sulphuric acid, and fill up with water. Into the porous cell pour a tablespoonful of mercury, put the zinc in place and fill up with water. The zinc should be lifted out occasionally and the sulphate washed off. Keep a supply of mercury in the porous cell, so as to have the zinc always well amalgamated.

ELECTROPOION FLUID FOR SINGLE FLUID CELLS.—Add one-half gallon of water to one pound of VOLTAK; also add one ounce of bisulphate of mercury to keep zinc amalgamated.

AMALGAMATING SOLUTION.—Mix one pound of nitric acid with two pounds muriatic, and add slowly eight ounces mercury. When dissolved, add three pounds more muriatic acid and stir. Clean the zinc with potash and dip in this solution for a second or two. Rinse in clear water and rub with battery brush.

Another method of amalgamating zincs is to clean them by dipping in dilute sulphuric acid; then dip into a vessel of mercury and allow the surplus to drain off.

HOUSE GOODS.

BATTERIES.



No. 1. 6x8 inches.
No. 2. 4½x6 inches.

Gordon Battery.

For closed or open circuit work.

This cell is especially recommended for continuous closed circuit work, and is equally as desirable for open circuit; is free from all local action, and will deliver its full rated output throughout its life; is not effected by extremes of temperature, remaining operative at 28° below zero. No. 1 cell has a constant current delivery of from 1 to 6 amperes per hour, and No. 2 of from ½ to 1 ampere per hour, each having an E. M. F. of about .7 volts. No. 1, 250 ampere hours; No. 2, 100 ampere hours.

| Trade Word. | | | Each. | Each, in Dozen Lots. |
|---------------|--------|----------------------------------|--------|----------------------|
| Faithfulness. | No. 1. | Cell complete, in glass jar..... | \$5.00 | \$4.50 |
| Faithless. | No. 1. | " " " enameled steel jar..... | 6.50 | 5.85 |
| Fakir. | No. 2. | " " " glass jar.... | 2.70 | 2.45 |
| Falcate. | No. 2. | " " " enameled steel jar..... | 3.20 | 2.90 |

RENEWALS.

| Trade Word. | | Price. | Trade Word. | Price. |
|-------------|------------------------------------|--------|-------------|--|
| Falcated. | No. 1. Copper element..... | \$1.00 | Transpire. | No. 2. Copper element..... \$0.50 |
| Falcon. | No. 1. Zinc "..... | .80 | Fallen. | No. 2. Zinc "..... .40 |
| Falconer. | No. 1. Electro-sodium and oil..... | .60 | Falling. | No. 2. Electro-sodium and oil..... .30 |
| Falcoury. | No. 1. Complete charge..... | 2.40 | Fallacion. | No. 2. Complete charge..... 1.20 |



No. 1. 300 Ampere Hours.
Size 4¼x4¼x7¼ inches.

Nungesser Battery.

For closed or open circuit work.

Designed for all classes of closed circuit work where constant delivery of current and E. M. F. are essential. No local action on short circuit, and not affected by extremes of temperature.

Standard type is contained in glass cell; is also furnished in portable form, having the cell of hard rubber, the cover screwing into position, making an air-tight joint.

| Trade Word. | | Price. |
|--------------|---|--------|
| Fallacy. | No. 1. Complete, in glass cell. | \$2.50 |
| Fallibility. | No. 1. Portable, complete in hard rubber cell.... | 6.00 |



No. 1. Portable. 300 Ampere Hours. Size 4¼x4¼x7¼ inches.

RENEWALS COMPLETE FOR NO. 1.

| | | |
|-------------|----------------------------------|--------|
| Fallible. | Chemicals and oil for No. 1..... | \$0.60 |
| Fallow. | Zinc for No. 1..... | .50 |
| Transplant. | Oxide copper for No. 1..... | 1.00 |

HOUSE GOODS.

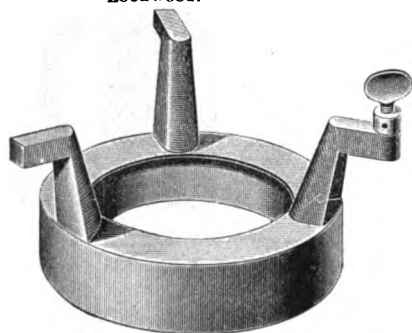
ZINCS.



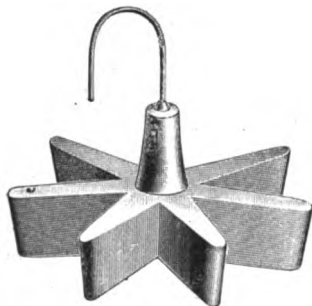
Gamewell.



Lockwood.



Gamewell pattern.



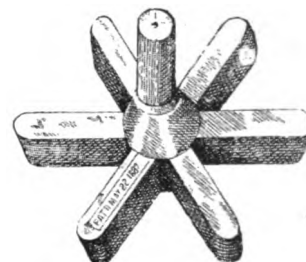
Star.

The Beattie Amalgamated Zincs.

| Trade Word. | | No. | | Price. |
|-------------|-----------|-----|-----------------|--------|
| Farcial. | Standard. | 1 | 4 lbs.....each. | \$0.80 |
| Farce. | Gamewell | 4 | 3 lbs..... | .60 |
| Fare. | Crowfoot. | 6x8 | 3 lbs..... | .60 |
| Trappings. | Daniels. | 11 | 2 1/4 lbs.... | .50 |
| Farmer. | Lockwood. | 12 | 2 1/4 lbs ... | .56 |
| Farming. | Star. | 14 | 2 1/2 lbs ... | .50 |
| Faro. | Wheel. | 15 | 3 lbs..... | .60 |
| Farrago. | Bunsen. | 16 | 3 1/4 lbs ... | .70 |
| Farrier. | Fuller. | 18 | " | .30 |



Standard No. 1.

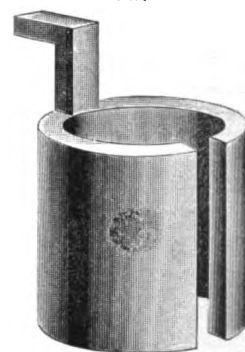


Star.

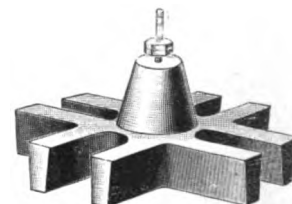
Edes Battery Zincs.



Standard pattern.



Bunsen.

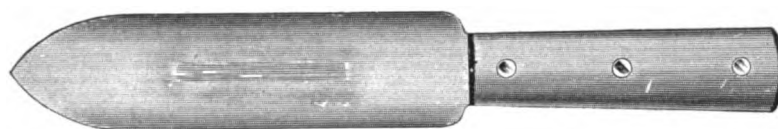


Lockwood.

| Trade Word. | | No. | | Price. |
|--------------|---------------------------------|-----|-----------|--------|
| Fascile. | Lockwood with pin and nut..... | 19 | 2 lbs | \$0.36 |
| Fascinate. | Wheel zinc with copper wire.... | 15 | 2 " 6 oz. | .40 |
| Fascination. | Standard pattern..... | 6 | 4 " | .55 |
| Fascin. | Gamewell " | 4 | 4 " | .60 |
| Fashion. | Bunsen " | 14 | 3 " 6 oz. | .60 |
| Trapped. | Star " | 18 | 2 " 2 " | .33 |

HOUSE GOODS.

BATTERY KNIFE.



| Trade Word. | | Price. |
|-------------|---------------------------------|--------------|
| Farthing. | For cleaning battery zinc | each, \$2.50 |

ZINC PLATES.

For battery purposes.

| Trade Word. | Thickness. | Size of plates. | Price. |
|-------------|---------------------|--------------------|----------------|
| Farrow. | $\frac{1}{8}$ inch. | 12x12 inches | per lb. \$0.25 |
| Farther. | $\frac{1}{4}$ " | 12x12 " | " .25 |
| Farthest. | $\frac{3}{8}$ " | 12x12 " | " .25 |

Special size plates cut to order and shipped from factory, prices quoted on application.

CARBON PLATES.

For battery purposes.

| Trade Word. | Thickness. | Size of plates. | Price. |
|-------------|---------------------|--------------------|--------------|
| Trainer. | $\frac{1}{4}$ inch. | 12x12 inches | each, \$1.20 |
| Traitorous. | $\frac{3}{8}$ " | " " | " 1.50 |
| Trajection. | $\frac{1}{2}$ " | " " | " 1.75 |

Special sizes cut to order.

HOUSE GOODS.

BATTERIES.

EDISON-LALANDE CELLS.

Principal Points in Favor of this Battery.

1. High and constant available electromotive force.
2. No local action, and, therefore, no loss of energy while the cell is idle—the chemical action in cell is less than one per cent. per month.
3. Extremely low internal resistance.
4. Heavy current delivery, absolutely constant.
5. Cheap materials easily obtained.
6. No attention or inspection required until all the energy of its elements is exhausted.
7. Convenience of form and freedom from noxious fumes or chemical deposits. No creeping.
8. No polarization.
9. Will not freeze at lowest temperature.
10. The Edison-Lalande Battery is now made in ten different types, each one of which is especially designed for the kind of work named.

Advice as to which Type of Cell to Use on Various Lines of Work.

Each type of cell has been constructed to fill special requirements of the electrical profession. Thus we recommend their use as follows:

Type B for medical induction coils.

Type J for telephone, annunciator, induction coil, medical galvanic and electric bell work.

Type X for local and long distance telephone.

Type Q for gas engines, small fan motors, spark coil, large annunciators and burglar alarms.

Type V (liquid-tight) for marine and traction gas and gasoline engines, and portable battery for phonographs.

Type Z (liquid-tight) for marine and traction gas and gasoline engines, and portable battery for phonographs.

Type R for gas engines, fan motors, phonographs, district telegraph, fire alarm telegraph, local and main line batteries, turntable motors, electro-plating, railroad and crossing bell signals.

Type Y for railroad and crossing bell signals; specially suitable for track circuit work.

Type S for fan motors, phonographs, electro-plating, chemical analysis, miniature lamps, sewing machines, X-ray coils, Heiman Centrifuge, railroad and crossing bell signals.

Type W for cautery batteries, dental motors, small power motors, sewing machines, X-ray coils, and Heiman Centrifuge.

Table Showing Relation between Old and New Models.

The manufacture of Edison-Lalande cells, types A, C, D, E, F, G, K, L, M, N, P and T, has been discontinued and newer models substituted as specified below. We still keep on hand renewal parts for these earlier types above referred to, so that customers having these cells in service will not be inconvenienced.

Old type C is now represented by new type J.

| | | | | | | |
|---|---|---|---|---|---|----|
| " | D | " | " | " | " | X. |
| " | E | " | " | " | " | Q. |
| " | G | " | " | " | " | R. |
| " | K | " | " | " | " | S. |
| " | P | " | " | " | " | W. |

The only change in these cells is that the zincs in the new types are bolted to a porcelain knob on the cover and consequently have a hole in the neck for the bolt to pass through, instead of being made with a hook, as in earlier models. The oxide plates, potash and oil, will do for the new and old types equally well.

Types A, F, L, M, N and T are not represented by new models, but are dropped altogether, as we found that the sizes we now make will fill all the requirements of the trade.

The following list will be of service to dealers carrying a line of our batteries on hand:

Oxide plates for A & B cells are the same size.

" " " C, J & X cells are the same size.

" " " E, F, K, L, Q, S & V cells are the same size.

Oxide plates for G, M, P, R, W & Y cells are the same size.

Potash cans for C, J & N cells are the same size.

" " " E, O, Q & V cells are the same size.

" " " G, R, K, L, S & Y cells are the same size.

" " " M, P & W cells are the same size.

Bottles of oil for C, J, N & Z cells are the same size.

" " " 2 oz. per cell.

" " " E, F, K, L, Q, S & V cells are the same size.

" " " 4 oz. per cell.

" " " G, R & Y cells are the same size.

" " " 6 oz. per cell.

" " " M, P, T & W cells are the same size.

" " " 8 oz. per cell.

Zincs for each type of battery will have to be ordered for that particular type.

Particular attention is directed to the Edison-Lalande cells, types V and Z, as both these models have steel enameled jars, with liquid-tight covers, and are specially suitable for use with portable gas engines, including marine and traction engines, etc., etc. Both types are strongly and well made, and will stand any amount of hard usage. They are also well adapted for portable phonograph batteries.

HOUSE GOODS.

BATTERIES.

EDISON-LALANDE BATTERIES.

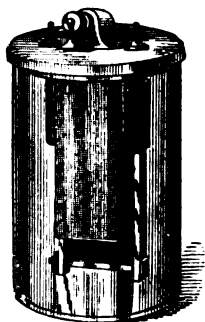
Type "J" Cell.

Annunciator model. Capacity, 50 ampere-hours.

| Trade Word. | Price. |
|-------------|---|
| Peck. | Cell complete, porcelain jar.....\$1.30 |

PRICE OF RENEWAL PARTS.

| | | |
|----------|-----------------------------------|--------|
| Pecked. | Copper oxide plate.....(1 charge) | \$0.12 |
| Pecking. | Zinc plate..... | .08 |
| Peckled. | 1 can, 2 sticks potash..... | .12 |
| Pectate. | Bottle heavy paraffine oil..... | .05 |



Type "J" Cell.
Size over all, 3¼ x 7 inches.

Type "Q" Cell.

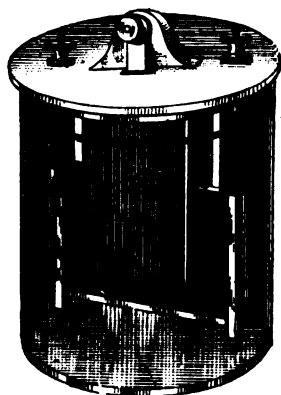
Small fan motor and gas engine model.

Capacity, 150 ampere-hours.

| Trade Word. | Price. |
|-------------|--|
| Pecten. | Cell complete, porcelain jar....\$2.00 |

PRICE OF RENEWAL PARTS.

| | | |
|--------------|-----------------------------------|--------|
| Pectinal. | 2 zinc plates.....(1 charge) | \$0.24 |
| Pectinate. | 1 copper oxide..... | .25 |
| Pectination. | 1 can, 2 sticks potash..... | .17 |
| Pectoral. | 1 bottle heavy paraffine oil..... | .05 |



Type "Q" Cell.
Size over all, 5¼ x 8 inches.

Type "X" Cell.

Special telephone model for local and long distance transmitters.

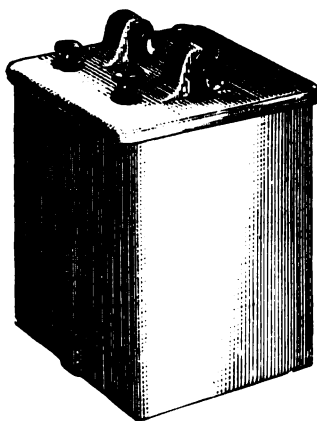
Capacity, 40 ampere-hours.

| Trade Word. | Price. |
|-------------|---|
| Peculate. | Cell complete, porcelain jar.....\$2.50 |

Cell is made to fit battery box under transmitter.

PRICE OF RENEWAL PARTS.

| | | |
|-------------|--------------------------------------|--------|
| Peculating. | 2 copper oxide plates.....(1 charge) | \$0.24 |
| Peculation. | 2 zinc plates..... | .16 |
| Peculator. | 2 cans potash..... | .20 |
| Peculiar. | 1 bottle paraffine oil..... | .05 |



Type "X" Cell.
Size over all, 4¼ x 4¼ x 7¼ inches.

HOUSE GOODS.

BATTERIES.

EDISON - LALANDE BATTERY.

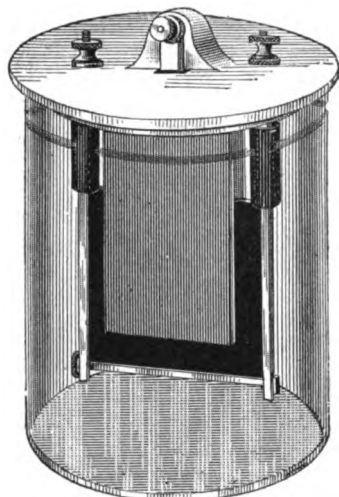
Type "R" Cell.

Western Union telegraph, gas engine and railroad crossing signal model.
Capacity, 300 ampere hours.

| | | |
|--------------|-----------------------------------|--------|
| Trade Word. | | Price. |
| Peculiarity. | Cell complete, porcelain jar..... | \$2.70 |

PRICE OF RENEWAL PARTS.

| | | | |
|------------|-----------------------------|------------|--------|
| Peculium. | 2 zinc plates.... | (1 charge) | \$0.42 |
| Pecuniary. | 1 copper oxide plate..... | " | .46 |
| Pecunious. | 1 can, 2 sticks potash..... | " | .28 |
| Trustee. | 1 bottle paraffine oil..... | " | .05 |



Type "R" Cell.
Size over all, 6½ x 10 inches.

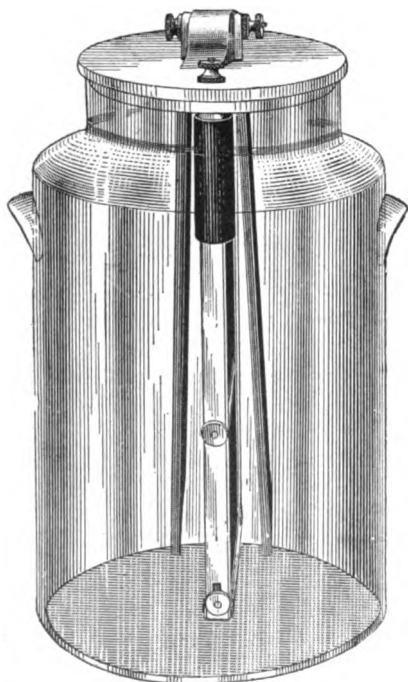
Type "S" Cell.

Phonograph and fan motor model. Capacity 300 ampere hours.

| | | |
|-------------|-----------------------------------|--------|
| Trade Word. | | Price. |
| Trudge. | Cell complete, porcelain jar..... | \$2.85 |

PRICE OF RENEWAL PARTS.

| | | |
|------------|--|--------|
| Pedantic. | 2 zinc plates (1 charge).. | \$0.42 |
| Pedantize. | 2 copper oxide plates (1 charge)..... | .50 |
| Pedantry. | 1 can, 2 sticks caustic potash (1 charge)..... | .28 |
| Pedarian. | 1 bottle paraffine oil (1 charge)..... | .05 |



Type "W" Cell. Size over all, 7½ x 15 inches.

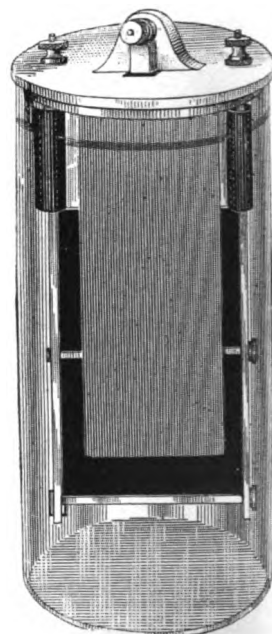
Type "W" Cell.

Large motor and cautery model. Capacity
600 ampere hours.

| | | |
|-------------|-----------------------------------|--------|
| Trade Word. | | Price. |
| Pedate. | Cell complete, porcelain jar..... | \$4.85 |

PRICE OF RENEWAL PARTS.

| | | | |
|-------------|--|----------------------|--------|
| Trustful. | 2 zinc plates | (capacity, 1 charge) | \$0.76 |
| Peddling. | 2 copper oxide plates | " " | .92 |
| Trustiness. | Can containing 4 sticks caustic potash (1 charge)..... | | .52 |
| Truebred. | Bottle heavy paraffine oil, sufficient for 1 charge..... | | .08 |



Type "S" Cell. Size over
all, 5½ x 13 inches.

HOUSE GOODS.

BATTERIES.

EDISON-LALANDE BATTERIES.

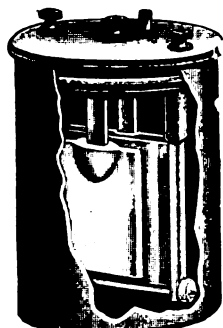
Type "Z" Cell.

Small marine and traction gas engine model. Liquid-tight steel enameled jar. Capacity, 100 ampere hours.

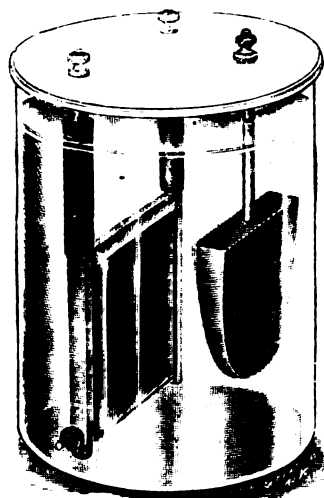
| Trade Word. | Price. |
|--------------------|--------|
| Cell complete..... | \$1.75 |

PRICE OF RENEWAL PARTS.

| | | |
|-------------|--|--------|
| Titubation. | 1 copper oxide plate (capacity, 1 charge)..... | \$0.20 |
| Titulary. | 1 zinc plate (capacity, 1 charge)..... | .25 |
| Toad. | 1 can caustic potash (capacity, 1 charge)..... | .15 |
| Toadish. | Bottle heavy paraffine oil (1 charge)..... | .05 |
| Toadstool. | Soft rubber gasket rings.....each, | .15 |



Type "Z" Cell.
Size over all, 4 $\frac{1}{2}$ x6 $\frac{1}{4}$ inches.
Jar only, 4 $\frac{1}{2}$ x6 inches.



Type "Y" Cell.
Size over all, 6 $\frac{1}{4}$ x10 inches.
Jar only, 6 $\frac{1}{4}$ x8 $\frac{1}{4}$ inches.

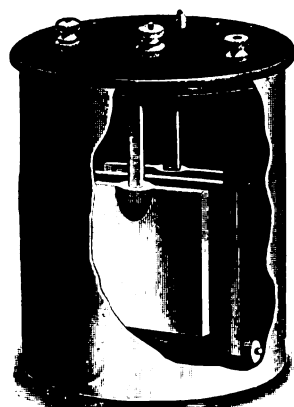
Type "Y" Cell.

Track-circuit and crossing-bell signal model. Capacity, 300 ampere hours.

| Trade Word. | Price. |
|-------------|--|
| Transfuse. | Cell complete, porcelain jar... ..\$2.50 |

PRICE OF RENEWAL PARTS.

| | | |
|-----------|--|--------|
| Toadyism. | 1 zinc plate (capacity, 1 charge)..... | \$0.30 |
| Toast. | 1 oxide plate (capacity, 1 charge)..... | .46 |
| Toddle. | 1 can caustic potash (capacity, 1 charge)..... | .28 |
| Toddy. | 1 bottle heavy paraffine oil (capacity, 1 charge)..... | .05 |



Type "V" Cell.
Size over all, 5 $\frac{3}{4}$ x8 inches.

Type "V" Cell.

Marine and traction gas engine model. Liquid-tight steel enameled jar. Capacity, 150 ampere hours.

| Trade Word. | Price. |
|-------------|--------------------------|
| Falsely. | Cell complete.....\$2.50 |

PRICE OF RENEWAL PARTS.

| | | |
|-------------|--|-----|
| Falseness. | 1 copper oxide plate (capacity, 1 charge)..... | .25 |
| Falsetto. | 1 zinc plate (capacity, 1 charge)..... | .30 |
| Falsifier. | 1 can caustic potash (capacity, 1 charge)..... | .17 |
| Falsify. | 1 bottle heavy paraffine oil (capacity, 1 charge)..... | .05 |
| Trajectory. | Soft rubber gasket rings.....each, | .15 |

HOUSE GOODS.

BATTERIES.

Edison-Lalande Supplies.

Dr. A. E. Kennelly's table showing comparative efficiency tests between the various sizes of Edison-Lalande cells, and other types of battery on the market, for purposes of driving small electric motors, or for moderate general delivery of power.

| TYPE OF CELL. | Mean Working E.M.F. Volts. | Average Internal Resist'ce Ohms. | Max'm'm Delivery Current Amperes | Capacity in Ampere-Hours. | List Price. | Power Valuat'n. $\frac{e^2}{r}$. | Economic Power Valuat'n. $\frac{e^2}{pr}$. | Continu's Current Ampere |
|---|----------------------------|----------------------------------|----------------------------------|---------------------------|-------------|-----------------------------------|---|--------------------------|
| Fuller bichromate..... | 1.8 | 0.40 | 4.50 | 68 | \$1.00 | 8.1 | 8.1 | |
| Western Union carbon bichromate type..... | 1.8 | 0.40 | 4.50 | 5 | 1.25 | 8.1 | 6.48 | |
| Partz motor cell..... | 1.83 | 0.51 | 3.58 | 65 | 4.50 | 6.57 | 1.458 | |
| Hussey eclipse..... | 1.4 | 0.8 | 1.75 | 45 | 2.50 | 2.45 | 0.98 | |
| Leclanché..... | 1.5 to 0.5 | 0.5 | 3.0 | | 1.00 | 1.0 | 1.0 | |
| Gravity Daniell, Western Union type, local... | 1.0 | 0.5 | 2.0 | | 0.90 | 2.0 | 2.22 | |
| Edison-Lalande, type B, faradic portable air tight | 0.667 | 0.50 | 1.334 | 15 | 1.25 | 0.89 | 0.71 | 0.5 |
| “ “ “ J, annunciator model.... | 0.667 | 0.180 | 3.705 | 50 | 1.30 | 2.47 | 1.90 | 1.0 |
| “ “ “ X, special telep. model... | 1.333 | 0.50 | 2.666 | 40 | 2.50 | 3.56 | 1.42 | 1.0 |
| “ “ “ Q, small fan motor and gas engine model..... | 0.667 | 0.070 | 9.528 | 150 | 2.00 | 6.35 | 3.18 | 2.5 |
| “ “ “ Z, liquid-tight small gas engine model..... | 0.667 | 0.089 | 7.494 | 100 | 1.75 | 5.0 | 2.86 | 1.5 |
| “ “ “ V, liquid-tight gas engine model..... | 0.667 | 0.070 | 9.528 | 150 | 2.50 | 6.35 | 2.54 | 2.5 |
| “ “ “ R, Gas engine and R. R. crossing signal model | 0.667 | 0.043 | 15.511 | 300 | 2.70 | 10.33 | 3.83 | 4.0 |
| “ “ “ Y, track circuit model... | 0.667 | 0.150 | 4.447 | 300 | 2.50 | 2.969 | 1.19 | 0.5 |
| “ “ “ S, phonograph and fan motor model..... | 0.667 | 0.025 | 26.680 | 300 | 2.85 | 17.78 | 6.24 | 6.0 |
| “ “ “ W, cautery and dental motor model..... | 0.667 | 0.020 | 33.350 | 600 | 4.85 | 22.22 | 4.58 | 7.0 |

The third column gives the current that the cells will deliver when placed on short circuit. The last column gives the limiting currents that it is usually advisable to take from the cells when worked continuously.

Prices of Permanent Parts of Edison-Lalande Cells.

| | |
|--|----------------|
| Glass jars, type "B" (faradic)..... | each, \$0.10 |
| Porcelain jars, type "J,"..... | “ .25 |
| “ “ “ “Q,”..... | “ .40 |
| “ “ “ “R,” and “Y,”..... | “ .50 |
| “ “ “ “S,”..... | “ .65 |
| “ “ “ “W,”..... | “ 1.65 |
| Steel enameled jar, type “V,”..... | “ .70 |
| “ “ “ “Z,”..... | “ .50 |
| Porcelain covers, type “B,” (faradic)..... | “ .15 |
| Rubber covers, type “B,” (faradic)..... | “ .40 |
| Porcelain covers, type “J,” and “Z,”..... | “ .25 |
| “ “ “ “Q,” “S,” “V” and “W,”..... | “ .35 |
| “ “ “ “R,” and “Y,”..... | “ .40 |
| Copper frames with bolts, type “B,” (faradic)..... | “ .25 |
| “ “ “ “J,” “X” and “Z,”..... | “ .30 |
| “ “ “ “Q,” and “V,”..... | “ .35 |
| “ “ “ “R,” and “Y,”..... | “ .40 |
| “ “ “ “S,”..... | “ .45 |
| “ “ “ “W,”..... | “ .45 |
| Copper bolts and nuts only, all sizes..... | “ .10 |
| Hard rubber insulators for copper frames, all sizes..... | “ .05 |
| Long brass bolts and nuts for zincs, all sizes..... | “ .10 |
| Nickel plated binding-post, “B,” (faradic)..... | “ .15 |
| Wire connections, all sizes..... | “ .05 |
| Flat copper strips, straight and twisted, “W,”..... | “ .10 |
| Flat nickel plated strips, “B,”..... | “ .10 |
| Nickel plated rings, “B,”..... | “ .10 |
| Soft rubber rings, “B,”..... | “ .03 |
| Soft rubber gasket rings, “V,” and “Z,”..... | “ .15 |
| Soft rubber washers for copper frames..... | per dozen, .10 |
| Soft rubber air vent nipples, “V,” and “Z,”..... | each, .03 |
| Thumb nuts, all sizes..... | “ .05 |
| Edison faradic cell, complete, type “B,” with porcelain cover..... | “ 1.25 |
| High resistance shunts for 3, 6 and 8 cells..... | “ 1.00 |

HOUSE GOODS.

CHLORIDE OF SILVER TESTING BATTERIES.



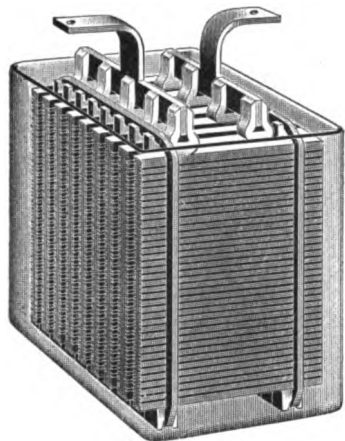
The Chloride of Silver Test Battery is now so well known, and in such general use, that we do not deem it necessary to publish the many testimonial letters from those who are using them, which we have in our possession; sufficient to say that these batteries have now seen ten years of service under every variety of conditions, and may be relied upon as entirely satisfactory and perfect for the purpose for which they are designed. *They are constant, they will not dry out, they have a long life, and there is not the slightest local action developed.* No other form of cell in the markets of the world can compete with these, and no electrician can possibly afford to be without them.

PRICE LIST OF BATTERIES.

| Trade Word. | | | | | | | | Price. |
|--|-----|---|--|--|--|--|--|---------|
| Fane. | 100 | cell test battery, complete, dimensions 13x9x7 $\frac{1}{2}$, weight about 15 $\frac{1}{2}$ lbs..... | | | | | | \$95.00 |
| Fang. | 84 | " " " " " 13x9x7 $\frac{1}{2}$, " " 14 " | | | | | | 82.00 |
| Fanlight. | 60 | " " " " " 12x5 $\frac{3}{4}$ x6 $\frac{1}{2}$, " " 10 $\frac{1}{2}$ " | | | | | | 60.00 |
| Fanpalm. | 50 | " " " " " 10x7x6, " " 10 " | | | | | | 50.00 |
| Fantasm. | 32 | " " " " " same as 50 cell " 8 $\frac{3}{4}$ " | | | | | | 35.00 |
| Fantastic. | 24 | " " " " " " " " " 8 " | | | | | | 27.00 |
| Fantastical. | 16 | " " " in a plain box without Current Reverser, dimensions 6 $\frac{5}{8}$ x5 $\frac{1}{2}$ x5 $\frac{1}{2}$. | | | | | | 20.00 |
| Fantasy. | 12 | " " " the same as above, dimensions 5 $\frac{5}{8}$ x5 $\frac{1}{2}$ x5 $\frac{1}{2}$ | | | | | | 15.00 |
| Far. | 6 | " " " " " " 4 $\frac{1}{2}$ x4 $\frac{1}{2}$ x5 | | | | | | 10.00 |
| Cost of renewing and restoring cells when exhausted, net price per cell..... | | | | | | | | .30 |

HOUSE GOODS.

BATTERIES.



The American Storage Battery.

For many purposes storage batteries are preferable to other sources of energy and particularly desirable where a continuous power current is not available. For operating induction coils, small motors and fans, cautery knives, incandescent lamps and various other similar applications, the storage battery will give excellent service. The peculiar construction of this type of battery makes it well adapted for cautery or similar work requiring large delivery of current for short periods. These cells are furnished in rubber or glass as noted below.

All cells are shipped fully charged; when ordered with rubber cells the elements are sealed in the cell and is furnished with the solution: when ordered with glass cells, the elements are shipped separate from the cell and the solution is not sent or is it included in the price of the cell; proper solution is one part commercial sulphuric acid to five parts water, specific gravity 1.19; working voltage of each cell, 2 volts. Batteries can be recharged from any direct current circuit whose electro-motive force exceeds that of the cell or series of cells to be charged. Full directions for recharging will be sent on application.

PRICE LIST.

| Trade Word. | Type. | Voltage. | External Dimensions Glass Containing Jar in inches. | | | | | | | External Dimensions Rubber Containing Cell in inches. | | | | Price Complete in Glass Jar. | Price Complete in Rubber Cell. | Packing. | | | | | |
|--------------|-------|----------|---|------------------------------|----------------------------|---------------------------------------|---------------------------------------|-------------------------------------|--------------------------|---|-----------------|-----------------|---|---------------------------------|-----------------------------------|-----------------|-----------------|---------|---------|---------------------|-----|
| | | | Low Rate of Discharge. | Normal Rate of Discharge. | High Rate of Discharge. | Cap. in Amp.-Hrs. Low Rate Dischg. | Capacity, Normal Rate of Discharge | Capacity, High Rate of Discharge | Normal Charging Rate. | Length. | Width. | Height. | Weight com- plete without solution, In pounds. | | | | Length. | Width. | Height. | Weight Complete. | |
| | | | | | | | | | | | | | | | | | | | | | |
| Familiarize. | Z. 1 | 2 | $\frac{1}{4}$ | $\frac{1}{2}$ | $\frac{3}{4}$ | 6 | 4 | 3 | $\frac{1}{2}$ | 2 | 3 $\frac{3}{8}$ | 6 $\frac{1}{2}$ | 3 $\frac{1}{2}$ | ..... | ..... | ..... | ..... | \$ 2.00 | ..... | .10 | |
| Familiarly. | R. 1 | 2 | $\frac{1}{2}$ | 1 | 1 $\frac{1}{2}$ | 12 | 8 | 6 | 1 | 2 | 3 $\frac{3}{8}$ | 6 $\frac{1}{2}$ | 5 $\frac{1}{2}$ | 3 $\frac{3}{8}$ | 2 | 5 | 4 $\frac{1}{4}$ | 8 | 2.50 | 3.25 | .10 |
| Family. | W. 1 | 2 | 1 | 2 | 3 | 20 | 16 | 12 | 2 | 2 | 5 | 6 $\frac{1}{2}$ | 9 | 4 $\frac{3}{8}$ | 2 $\frac{1}{4}$ | 7 $\frac{1}{8}$ | 8 | 3.75 | 4.75 | .15 | |
| Famine. | N. 1 | 2 | 3 | 5 | 7 $\frac{1}{2}$ | 45 | 40 | 30 | 5 | 7 $\frac{3}{4}$ | 3 $\frac{1}{4}$ | 10 | 22 | 6 $\frac{3}{4}$ | 2 $\frac{3}{8}$ | 10 | 20 | 7.00 | 8.25 | .15 | |
| Famish. | N. 2 | 2 | 5 | 10 | 15 | 90 | 80 | 60 | 10 | 7 $\frac{3}{4}$ | 4 $\frac{3}{4}$ | 10 | 36 | 7 | 4 $\frac{1}{2}$ | 10 | 35 | 10.00 | 12.00 | .20 | |
| Famous. | N. 3 | 2 | 8 | 15 | 22 | 135 | 120 | 90 | 15 | 7 $\frac{3}{4}$ | 6 | 10 | 54 | 7 | 5 $\frac{1}{8}$ | 10 | 50 | 13.00 | 15.00 | .25 | |
| Famously. | N. 4 | 2 | 10 | 20 | 30 | 180 | 160 | 120 | 20 | 7 $\frac{3}{4}$ | 7 $\frac{3}{4}$ | 10 | 68 | 7 | 6 $\frac{1}{8}$ | 10 | 65 | 16.50 | 18.00 | .25 | |
| Fan. | N. 5 | 2 | 13 | 25 | 38 | 225 | 200 | 150 | 25 | 8 $\frac{1}{2}$ | 7 $\frac{3}{4}$ | 10 | 85 | 7 | 8 | 10 | 80 | 19.75 | 21.25 | .30 | |
| Fanatic. | N. 6 | 2 | 15 | 30 | 45 | 270 | 240 | 180 | 30 | 10 $\frac{1}{2}$ | 7 $\frac{3}{4}$ | 10 | 95 | ..... | ..... | ..... | ..... | 23.25 | ..... | .35 | |
| Fanatical. | V. 5 | 2 | 25 | 38 | 50 | 325 | 300 | 250 | 38 | 10 | 10 | 14 | 120 | ..... | ..... | ..... | ..... | 30.00 | ..... | .40 | |
| Fanaticism. | V. 6 | 2 | 30 | 45 | 60 | 390 | 360 | 300 | 45 | 12 | 10 | 14 | 140 | ..... | ..... | ..... | ..... | 36.00 | ..... | .50 | |
| Fancier. | V. 7 | 2 | 35 | 53 | 70 | 455 | 420 | 350 | 53 | 14 | 10 | 14 | 160 | ..... | ..... | ..... | ..... | 43.00 | ..... | .60 | |

WE ARE NOT RESPONSIBLE FOR BREAKAGE OR LOSS AFTER SHIPPING OR DELIVERING GOODS AND OBTAINING RECEIPT FOR THEM IN GOOD ORDER.

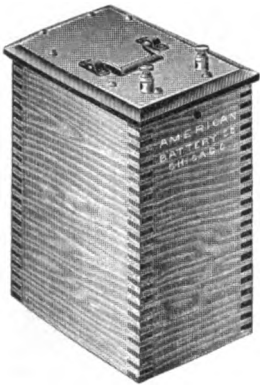
Quotations on larger sizes of batteries will be made on application.

HOUSE GOODS.

BATTERIES.

THE AMERICAN STORAGE BATTERIES.

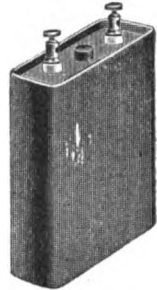
Cabinet Type.



With the exception of the B0, R1. and W1. the cells listed below are incased in a nicely finished oak case with handles and exposed binding posts, are strictly portable and can be safely handled without danger of breaking or spilling liquid.

Any of the Phonograph pattern cells may be used for this work. The standard cell for Phonograph, type N. P. 3, will run a phonograph for about seventy-five hours on one charge.

For the standard size of kinetoscope, battery type N. K. 2 is largely used. It will operate kinetoscope for ten hours on one charge.



Any of the N. C. batteries will give satisfaction for heating cauterly knives. The N. C. 2 battery will do the average physician's work for a year before requiring a new charge. These are also suitable for running physician's mouth lamp.

There are a number of good battery fan motors on the market, any of which can be successfully run with from one to four cells N. P. pattern, according to size of motor. A small 7-in. desk fan motor can be run for about 75 hours by one cell "N. P. 2."

One cell type N. P. 3 will run an "Edison" battery fan motor with 9-in. fan at 800 revolutions per minute, for about 60 hours. This motor has given excellent satisfaction for sick rooms and other places where a mild breeze is desired.

Two cells, Type N. P. 3, will drive this motor at 1400 revolutions for about fifty hours, giving good results for ventilating small rooms.

For carriage lighting, three lamps of about 3 C. P. each are generally used. Cabinet battery W. K. 1 will run these three lamps for about eight hours on one charge.

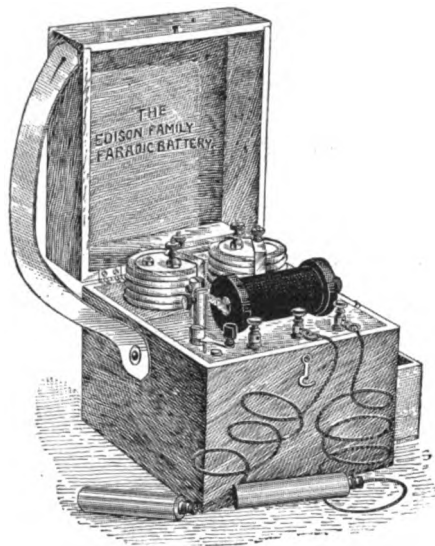
Using 1 C. P. lamps, battery W. X. 1 will maintain three for about ten hours per charge. The R. C. 1 battery on account of its small size is desirable for operating physician's or dentist's mouth lamps. It will run a 1 C. P. lamp for about twelve hours.

The smallest battery listed, type B. 0. is suitable for bicycle or watchman's lamp. It will maintain a 4 volt 2-10 ampere, $\frac{1}{2}$ C. P. lamp, for ten hours on one charge. Although very small it is very substantially made, and possesses same durability as the larger batteries.

| Trade Word. | Type. | Voltage. | Normal Rate of Discharge. | Capacity Normal Rate of Discharge. | Low Rate of Discharge. | Capacity Low Rate of Discharge. | Normal Charging Rate. | Weight in lbs. | External Dimensions Inches. | | | Price. |
|-------------|---------|----------|---------------------------|------------------------------------|------------------------|---------------------------------|-----------------------|-----------------|-----------------------------|-----------------|------------------|---------|
| | | | | | | | | | Length. | Width. | Height. | |
| Fanciful | B. O. | 4 | 2-10 | Amp-hrs 2 | 1-10 | Amp-hrs 2 $\frac{1}{2}$ | 2-10 | 2 | 2 $\frac{1}{2}$ | 2 | 4 $\frac{1}{2}$ | \$ 3.25 |
| Tuition | R. 1 | 2 | 1 | 8 | $\frac{1}{2}$ | 12 | 1 | 4 $\frac{1}{4}$ | 3 $\frac{1}{2}$ | 2 | 5 | 3.25 |
| Fandango | W. 1 | 2 | 2 | 16 | 1 | 20 | 2 | 8 | 4 $\frac{1}{2}$ | 2 $\frac{1}{2}$ | 7 $\frac{1}{8}$ | 4.75 |
| Toggery | R. C. 1 | 4 | 1 | 8 | $\frac{1}{2}$ | 12 | 1 | 12 | 5 | 5 | 8 | 9.00 |
| Toilet | W. C. 1 | 4 | 2 | 16 | 1 | 20 | 2 | 20 | 6 | 6 | 10 | 12.25 |
| Toilsome | R. X. 1 | 6 | 1 | 8 | $\frac{1}{2}$ | 12 | 1 | 16 | 8 | 5 | 8 | 12.75 |
| Token | W. X. 1 | 6 | 2 | 16 | 1 | 20 | 2 | 28 | 8 | 6 | 10 | 17.50 |
| Tolerable | R. K. 1 | 8 | 1 | 8 | $\frac{1}{2}$ | 12 | 1 | 24 | 9 $\frac{1}{4}$ | 5 | 8 | 16.25 |
| Toleration | W. K. 1 | 8 | 2 | 16 | 1 | 20 | 2 | 38 | 8 $\frac{3}{4}$ | 8 | 10 | 25.00 |
| Tollable | R. F. 1 | 10 | 1 | 8 | $\frac{1}{2}$ | 12 | 1 | 30 | 12 | 5 | 10 | 21.00 |
| Tollbar | W. F. 1 | 10 | 2 | 16 | 1 | 20 | 2 | 48 | 12 | 6 | 10 | 29.00 |
| Tollbooth | N. P. 1 | 2 | 5 | 40 | 3 | 45 | 5 | 24 | 8 | 4 $\frac{1}{2}$ | 12 $\frac{1}{4}$ | 9.75 |
| Tollgate | N. P. 2 | 2 | 10 | 80 | 4 | 90 | 10 | 38 | 8 | 6 | 12 $\frac{1}{2}$ | 13.50 |
| Tollsome | N. P. 3 | 2 | 15 | 120 | 6 | 150 | 15 | 54 | 8 | 8 | 12 $\frac{1}{2}$ | 16.50 |
| Tomahawk | N. P. 4 | 2 | 20 | 160 | 8 | 200 | 20 | 66 | 8 | 8 $\frac{1}{2}$ | 12 $\frac{1}{2}$ | 19.50 |
| Tomb | N. C. 1 | 4 | 5 | 40 | 3 | 45 | 5 | 46 | 8 | 6 $\frac{1}{2}$ | 12 $\frac{1}{2}$ | 19.50 |
| Tombless | N. C. 2 | 4 | 10 | 80 | 4 | 90 | 10 | 75 | 10 | 8 | 12 $\frac{1}{2}$ | 27.00 |
| Tombstone | N. C. 3 | 4 | 15 | 120 | 6 | 150 | 15 | 110 | 14 | 8 | 12 $\frac{1}{2}$ | 33.00 |
| Tomfoolery | N. C. 4 | 4 | 20 | 160 | 8 | 200 | 20 | 135 | 16 | 8 | 12 $\frac{1}{2}$ | 39.00 |
| Tomtit | N. X. 1 | 6 | 5 | 40 | 3 | 45 | 5 | 70 | 10 | 8 | 12 $\frac{1}{2}$ | 29.00 |
| Tonga | N. X. 2 | 6 | 10 | 80 | 4 | 90 | 10 | 115 | 16 | 8 | 12 $\frac{1}{2}$ | 40.00 |
| Tongue | N. X. 3 | 6 | 15 | 120 | 6 | 150 | 15 | 160 | 20 | 8 | 12 $\frac{1}{2}$ | 49.00 |
| Tongue | N. X. 4 | 6 | 20 | 160 | 8 | 200 | 20 | 200 | 24 | 8 | 12 $\frac{1}{2}$ | 58.00 |
| Tonic | N. K. 1 | 8 | 5 | 40 | 3 | 45 | 5 | 90 | 14 | 8 | 12 $\frac{1}{2}$ | 38.00 |
| Tonicite | N. K. 2 | 8 | 10 | 80 | 4 | 90 | 10 | 145 | 20 | 8 | 12 $\frac{1}{2}$ | 54.00 |

HOUSE GOODS.

MEDICAL BATTERIES.



Edison Family Faradic Battery.

| Trade Word. | Price. |
|--|---------|
| Pensively. Complete, in polished quartered oak case, with metal electrodes | \$10.00 |

PRICE OF RENEWAL PARTS FOR CELLS.

| | |
|--|--------|
| Penstock. 2 copper oxide plates..... | \$0.16 |
| Pentagon. 2 zinc plates..... | .16 |
| Pentagraph. Can containing 4 sticks potash..... | .16 |
| Pentameter. 2-ounce bottle of oil for 2 cells..... | .05 |
| Total..... | .53 |

The Edison-Lalande battery, on account of its great constancy of current and also its absence from local action when not in actual service, is most suitable for use in faradic batteries. We have, therefore, placed on the market a line of these batteries to fill the requirements of the general public and also the advanced specialists in electro-therapeutics.

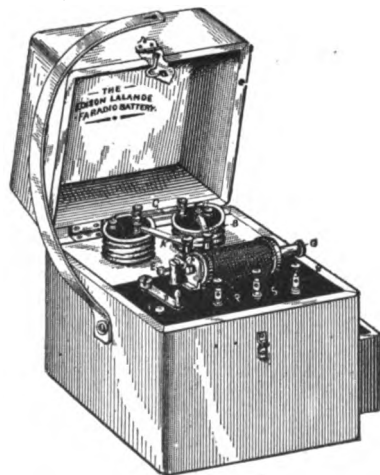
The coils in these batteries are so wound that the strength of the current in the primary and the secondary winding is perfectly progressive.

The vibrations obtained are of a very pleasing character, being entirely free from uneven pulsations, a cause of considerable trouble frequently experienced.

When battery is not in action, it is unnecessary to remove the zinc from solution (as in most other faradic batteries), but simply to turn the switch, as there is no waste on open circuit.

The current furnished by the cells is perfectly constant, so that battery can be used for hours without falling off in strength.

The cost of renewal of battery is very low and replacing of the parts easily and conveniently accomplished.



Edison Physician Faradic Battery.

| Trade Word. | Price. |
|--|---------|
| Pentecost. Complete, in polished quartered oak case, with sponge electrode | \$15.00 |
| Penthouse. The same, with interchangeable fast and slow vibrators | 16.00 |

PRICE OF RENEWAL PARTS FOR BOTH CELLS.

| | |
|--|--------|
| Pentice. 2 copper oxide plates..... | \$0.16 |
| Pentile. 2 zinc plates | .16 |
| Pentroof. Can containing 4 sticks potash..... | .16 |
| Penult. 2-ounce bottle of oil, sufficient for 2 cells..... | .05 |
| Total..... | .53 |

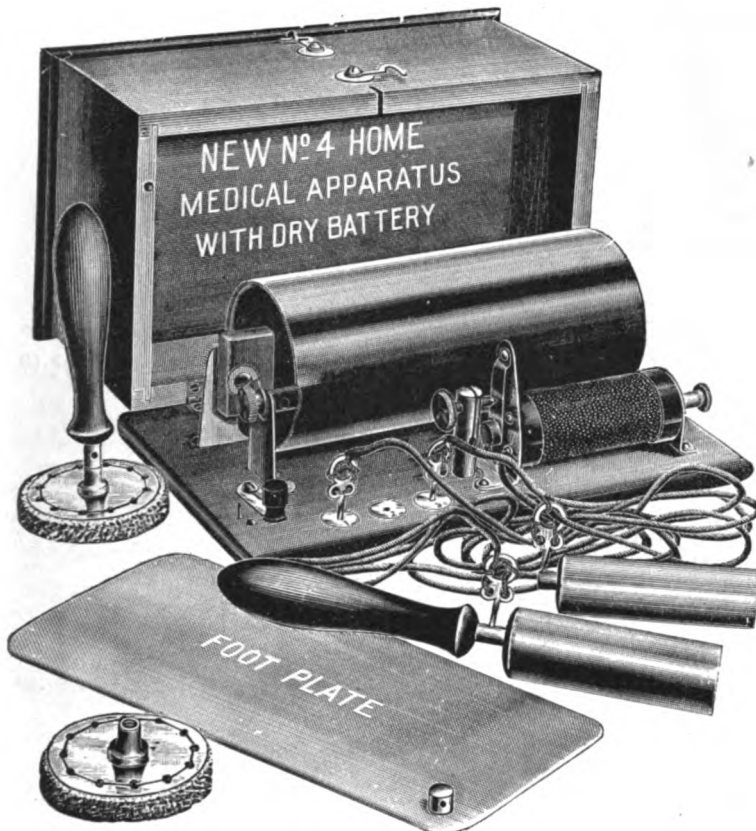
PRICE OF ACCESSORIES.

| | |
|---|------------------|
| Nutritional. Sponge electrodes and handles..... | per pair, \$1.00 |
| Nutrition. Metal handles | .50 |
| Nutritious. Battery cords | .50 |
| Nutritive. Slow vibrators..... | each, 1.00 |

The copper oxide plate and zinc plate used in these batteries will stand two charges (one renewal) of caustic potash solution before being exhausted.

HOUSE GOODS.

MEDICAL BATTERIES.

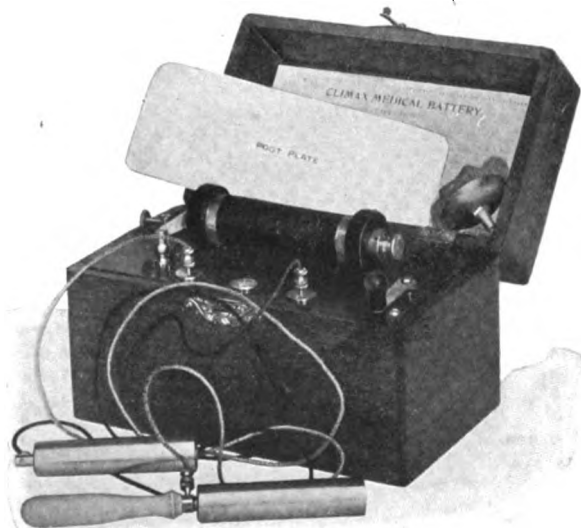


The New No. 4 Home Medical Apparatus.
Case open at lower compartment, showing the entire apparatus, with battery, coil and electrodes complete.

Climax Medical Battery.

This is a very neat, well-made and convenient low-priced outfit, and should meet with a large sale. It is contained in a polished mahogany case, having nickel handle and catch, and is furnished with nickel-plated hand electrodes, foot plate and sponge electrode.

It is operated with one cell of dry battery. Three variations of current may be obtained from this instrument, and all can be increased or diminished by the use of a regulating commutator. The current is automatically switched off when the cover of the case is closed, so that unnecessary waste of battery cannot take place.



Trade Word. Price.
Truckling. Complete, with battery.....\$5.50

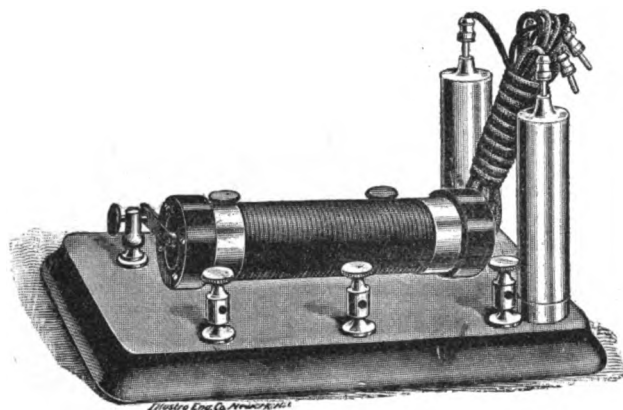
The New No. 4 Apparatus.

The unusually complete and excellent set of electrodes furnished with this instrument makes it very convenient in a great variety of applications for the patient, with or without assistance: for instance, in the use of the two sponge electrodes, one in each hand, or having one of them clasped against any part of the body by means of an elastic, while the other, attached to its insulating handle, can be applied wherever desired; or, when the foot plate is used, and the sponge electrode applied from the other pole of the battery, and a great many other combinations which would naturally suggest themselves from the fact of having the electrodes with which to make them.

Prices of Battery and Parts.

| Trade Word. | Price. |
|--|--------|
| Pard. No. 4 apparatus, with battery and electrodes complete..... | \$7.50 |
| Tubercle. Extra battery, per cell..... | .40 |
| Pardoner. Sponge electrodes, with 2 handles, per pair..... | 1.50 |
| Pare. Tube hand electrodes, with 1 handle, per pair..... | 1.20 |
| Pared. Connecting cord, 4 feet, with tips, per pair..... | .60 |
| Paregoric. Foot plates, each..... | .50 |
| Tubercular. Hair brush electrodes (extra), 2 | 00 |

HOUSE GOODS.



MEDICAL BATTERIES.

Induction Coil, No. 2.

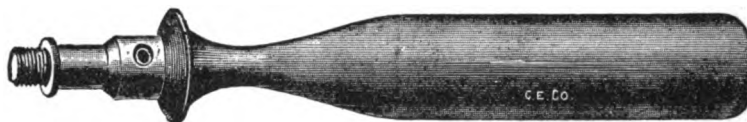
Same as No. 1, but smaller.

Furnished with cords and nickel-plated electrodes.

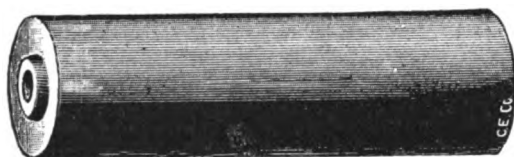
| | | |
|-------------|---------------|--------|
| Trade Word. | | Price. |
| Lank. | Complete..... | \$3.50 |

Standard Interchangeable Electrode Handle.

Nickel-plated mountings.



| | | |
|-------------|------------------|--------------|
| Trade Word. | | Price. |
| Lantern. | Handle only..... | each. \$0.50 |



Standard Cylindrical Hand Electrode.

Nickel-plated.

Fits the standard interchangeable handle.

| | | |
|-------------|--------------------------|------------------|
| Trade Word. | | Price. |
| Lapdog. | Hand electrode only..... | per pair. \$0.50 |

Standard Sponge Electrode.

Nickel plated frame. Fits the standard interchangeable handle.



| | | |
|-------------|----------------------------|--------------|
| Trade Word. | | Price. |
| Lapidary. | Sponge electrode only..... | each. \$0.50 |
| Lapping. | Handle with above..... | " 1.00 |

Standard Medical Battery Cords.

Mounted complete with tapered tips.



| | | |
|-------------|---------------|--------|
| Trade Word. | | Price. |
| Largess. | Each..... | \$0.30 |
| Lariat. | Per pair..... | .50 |

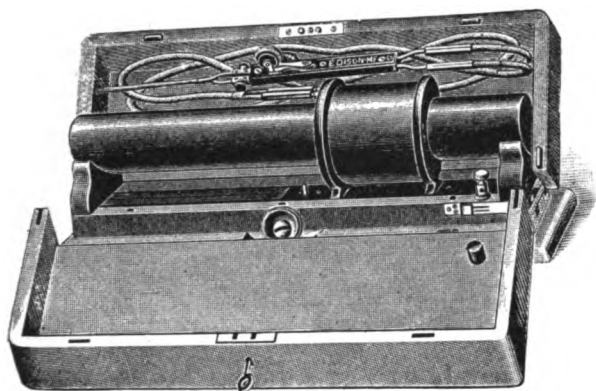
Tinsel Cord.

| | | |
|-------------|------------------------------------|------------------|
| Trade Word. | | Price. |
| Lapse. | One conductor, cotton covered..... | per yard, \$0.10 |
| Lapseil. | Double " " " "..... | " .25 |
| Lapsing. | One " silk " "..... | " .15 |
| Lapping. | Double " " " "..... | " .30 |

HOUSE GOODS.

EDISON ALTERNATING CURRENT CAUTERY TRANSFORMERS.

For use on 50 or 100 volt alternating current.



Designed to enable physicians to use the alternating current for electro-cautery and diagnostic lamp purposes.

The primary coil is connected directly to the mains; the secondary coil is wound on a movable spool, with terminals for attachment of cords to cautery knives or to diagnostic lamp. A ratchet is provided whereby the secondary coil can be moved in or out of the primary field thereby increasing or decreasing the strength of

the secondary current. The apparatus is mounted in a highly polished oak case with cover, as illustrated and is fitted with a switch which automatically cuts off the current when the case is closed.

In ordering specify voltage of circuit.

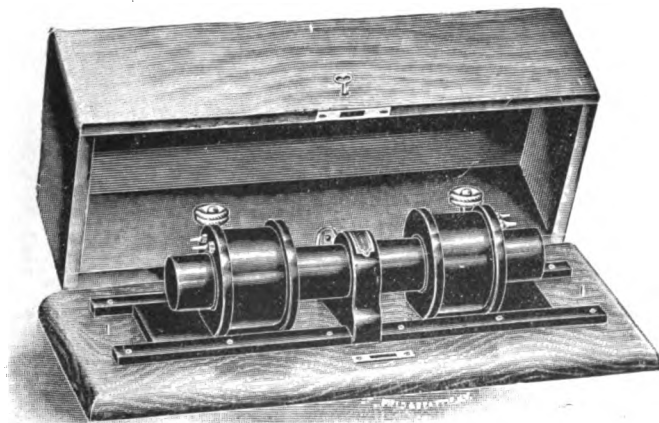
Trade Word.

Toothache. Complete with attachment cord, plug and cautery cord..... \$25.00

Price.

ALTERNATING CURRENT COMBINATION TRANSFORMER.

For 50 or 100 volt alternating current.



This outfit is similar in construction to the cautery transformer described above, but is provided with two movable coils for enabling the cautery knife and laryngoscopic lamp to be used at the same time and yet to be regulated independent of each other.

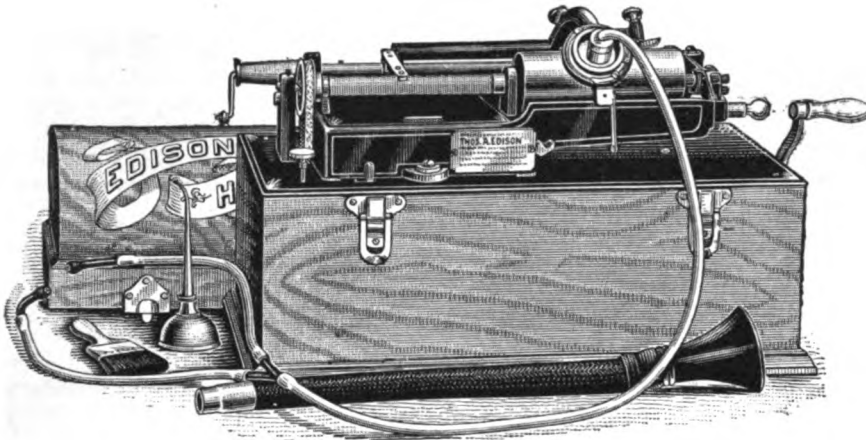
Trade Word.

Toothpick. Complete with attachment cord, plug and cautery cord... each, \$30.00

Price.

HOUSE GOODS.

EDISON HOME PHONOGRAPH.



A complete talking and musical machine that does the same work as the high-priced instruments, and superior to all of the cheap machines for music.

Simple in construction, easy to operate, and costless to maintain.

Equipped with a spring motor that runs six records with a single winding.

Will record, will reproduce, will shave off. No extra charge for shaving device. Fitted with instantaneous speaker clamps for instant change of speaker.

Made of steel, iron and brass throughout. No soft metal or composition. Finished in black enamel and gold. Incased in oak box with illuminated oak cover, forming complete carrying case. Weighs 25 pounds. Anybody can operate it. Full printed directions. Just as shown in above cut, with a carrying cover to enclose the top.

Every Edison Home Phonograph includes, free of charge, an Edison Standard Speaker, with recording and reproducing saphires, or an automatic reproducer (specify which in ordering, otherwise the automatic will be supplied), a sapphire shaving knife, oak body box, oak cover, one speaking tube, one hearing tube, one winding crank, one oil can, one chip brush. It is this machine that sells for \$30.00. In place of the speaking tube, a small parlor horn can be furnished, if desired.

Trade Word.

Topple. Each.....\$30.00

Price.

EDISON NEW STANDARD PHONOGRAPH.

Including automatic reproducer or standard recorder and reproducer (specify which in ordering, otherwise the automatic will be supplied), a sapphire shaving knife, one 1-way hearing tube, one speaking tube, one camel's hair chip brush, one oil can, one oak case and one winding crank. Fitted with instantaneous speaker clamps for the instant exchange of speakers. A 14-inch tin japanned horn can be substituted for the speaking tube if desired.

This machine is made of iron, steel and brass. Nickel gears and mandrel. Black enamel and gold finish. Encased in a handsome oak carrying case. Actuated by a spring motor that runs two to three records with a single winding.

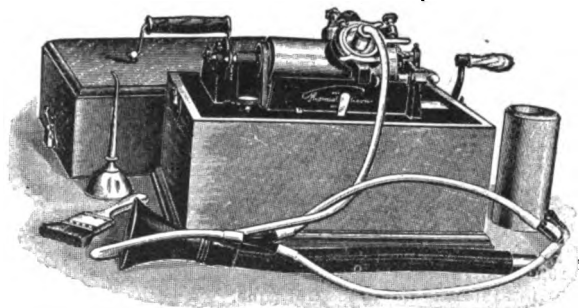
Winding handle *does not* revolve when the machine is running. Can be wound while in motion without interfering with reproduction. Light, durable and efficient. Absolutely *noiseless*. Regulation perfect. Can be operated by a child, so simple is its mechanism. Weighs 17 lbs.

Records, reproduces and shaves blanks. No extra charge for shaving device. No advertisement on the carrying case.

Trade Word.

Trammel. Complete.....each, \$20.00

Price.



HOUSE GOODS.

PHONOGRAPH SUPPLIES.

BLANK CYLINDERS.

The blank cylinder used for the phonograph is made by Mr. Edison, and the Edison blank is chemically pure. It has no successful rival in the market. There is no talking machine company or infringer who does not recognize this fact, and there are no records worth having, which are not made on Edison blanks. Other kinds are gritty, harsh and unserviceable, and little if any cheaper.

As delivered by the factory, blanks do not have surfaces prepared for receiving a record. It is necessary to shave off one or two turns to secure a perfectly true working surface. The phonograph is furnished with a device for doing this. When once trued, the cylinder always remains true.

With outfits the cylinders supplied are first shaved off, for the convenience of users.

The price of blanks is 20 cents each. Shaved blanks 25 cents each.

EDISON MUSICAL RECORDS.

A complete list of the musical and other records made at the Edison laboratory will be supplied on request. These cylinders are already prepared with records of the playing of famous bands, orchestras and soloists, and the singing of various artists, and are ready to be put on the machine for immediate reproduction.

They are sold at 50 cents each.

A PARTIAL LIST OF POPULAR RECORDS BY

Edison Grand Concert Band.

- 1 All Coons Look Alike to Me. (Schottische.)
- 2 America.
- 14 Bridal March from Lohengrin.
- 19 Cuban Patriots' March.
- 21 Dixie.
- 25 El Miserere, from Il Trovatore.
- 26 First Heart Throbs.
- 30 Hallelujah Chorus from Messiah.
- 85 Selections from Robin Hood.
- 88 Sextette from Lucia.
- 96 Wacht am Rhein.
- 97 Washington Post March.

By Edison Symphony Orchestra.

- 503 Ange d'Armour Waltz.
- 513 Bride Elect March. (Sousa's latest.)
- 550 Medley of Irish Airs.
- 566 La Senorita Waltz.
- 574 Love's Dreamland Waltz.
- 636 Trombone Solo. The Rose Tint Leaves the Sky. (Sousa's Bride Elect.)
- 647 Tarantella. (Sousa's Bride Elect.)
- 652 Sweetest Story Ever Told. (Trombone Solo.)

Songs.—Tenor.

- 1131 Father, Won't You Speak to Sister Mary? (As Sung in "Stranger in New York.")
- 2019 Hot Time in the Old Town.
- 2024 I'll Make Dat Black Gal Mine.
- 2029 Light of My Life.
- 2050 That Night I'll Never Forget. (From Chimes of Normandy.)

Male Quartette.

- 2201 Annie Laurie.
- 2205 I Love My Love.
- 2209 Sun of My Soul. (Sacred.)
- 2221 Little Alabama Coon.
- 2224 Church Scene. (From the Old Homestead, With Chimes Imitations.)

Cornet Solos.

- 2406 Down on the Suwanee River.
- 2412 Flora Waltz.
- 2425 Palms.
- 2434 Yankee Doodle and Variations.

Banjo Solos.

- 2604 Coconut Dance.
- 2606 Darkies' Patrol.
- 2607 Darkies' Awakening.
- 2705 Popular Medley.

New Minstrel Records.

- 4700 How I Love My Lou. (With Whistling Chorus.)
- 4703 Remus Takes the Cake, and Cornet Solo.
- 4704 Minstrel Scene. (Quartette Chorus.)

Vocal Trios.

- 4802 You Remember 'Twas Six Months Ago. (Sousa's Bride Elect.)
- 4804 Farewell My Own. (Pinafore.)
- 4806 Unchain the Dogs of War. (Marching Song from Sousa's Bride Elect.)

Bass Solos.

- 4901 Clang of the Forge.
- 4903 Bedouin Love Song.
- 4904 Thy Sentinel Am I.
- 4910 Monarch of the Woods.
- 4916 Brown October Ale. (From Robin Hood.)

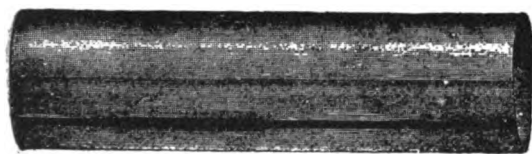
Bugle Calls.

- 2435 Bugle Calls:
 - a. Assembly of Trumpeters.
 - b. Assembly.
 - c. Reveille.
 - d. Tattoo.
 - e. Taps.
- 2436 Bugle Calls No. 2:
 - a. Sick Call.
 - b. Retreat.
 - c. Adjutant's Call.
 - d. Assembly of Guards.
 - e. General Call.

HOUSE GOODS.

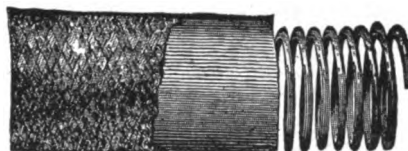
SPEAKING TUBE SUPPLIES.

Tin Speaking Tubes.



| | | |
|-------------|----------------------------------|---------|
| Trade Word. | | Price. |
| Lingo. | Size. 1 inch.....per 1,000 feet, | \$16.00 |
| | Per 100 feet..... | 1.80 |

Flexible Speaking Tubes.



This flexible tubing can be used in any position at office desks, at the bedside for doctors' use, and many other places. It has spiral steel wire insertion, and is the only proper flexible tube for speaking-tube use.

It is made of band rubber tube, covered with the best mohair.

| | | |
|-------------|--|--------|
| Trade Word. | | Price. |
| Lieutenant. | No. 78. Covered with black and green mohair, per foot..... | \$0.30 |

Tinned Straps.



| | | |
|-------------|--------------------------------|--------|
| Trade Word. | | Price. |
| Lineage. | For 1 inch tube.....per pound, | \$0.30 |
| Cerebral. | Staples for 1 inch tube... " " | .20 |

Office Wire Staples.



| | | |
|-------------|---|--------|
| Trade Word. | | Price. |
| Chaffing. | No. 1. For large office wire, per lb. pkg., | \$0.18 |
| Chagrin. | No. 2. " Annunciator wire, " " | .18 |
| Chained. | " 3. Flat top, per lb. pkg..... | .18 |

Insulating Steel Staples.



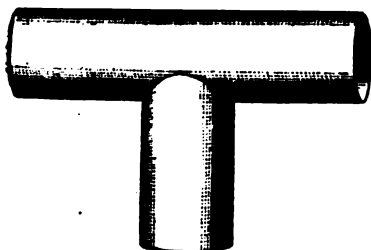
No special tool is required in driving this staple. The metal cannot come in contact with the wire, as it is prevented by fiber saddle.

| | | |
|-------------|---|--------|
| Trade Word. | | Price. |
| Cerin. | For wire $\frac{1}{16}$ diameter, per 1,000 | \$2.40 |
| Ceres. | " $\frac{1}{8}$ " " " | 4.00 |
| Transept. | " $\frac{1}{4}$ " " " | 8.80 |

Leather Nail Heads.

| | | |
|-------------|-----------------------------|--------|
| Trade Word. | | Price. |
| Trisected. | In 1000 lots, per 1000..... | \$1.00 |
| | In 5000 lots, per 1000..... | .70 |

Tee Joints.



| | | |
|-------------|----------------------|---------|
| Trade Word. | | Price. |
| Limpid. | 1 inch, per 100 | \$12.00 |

Stamped Elbows.



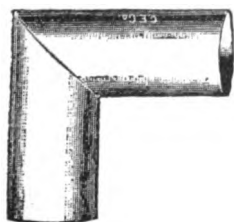
| | | |
|-------------|---------------------|--------|
| Trade Word. | | Price. |
| Limitation. | 1 inch, per 100.... | \$6.00 |

Corrugated Elbows.



| | | |
|-------------|----------------------|--------|
| Trade Word. | | Price. |
| Limmer. | 1 inch, per 100 | \$3.00 |

Square Elbows.

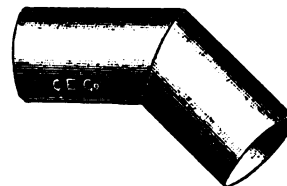


| | | |
|-------------|----------------------|--------|
| Trade Word. | | Price. |
| Limekiln. | 1 inch, per 100..... | \$2.00 |

Hexagonal Elbows.



| | | |
|-------------|---------------------|--------|
| Trade Word. | | Price. |
| Limestone. | 1 inch, per 100.... | \$4.00 |



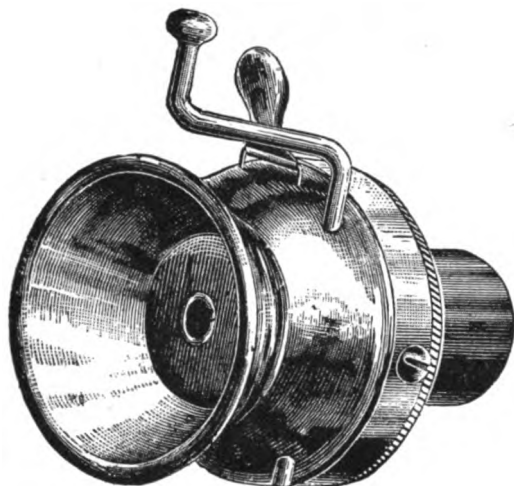
| | | |
|-------------|----------------------|--------|
| Trade Word. | | Price. |
| Limpsey. | 1 inch, per 100..... | \$4.00 |

HOUSE GOODS.

SPEAKING-TUBE SUPPLIES.

MOUTH PIECES AND WHISTLES.

The Globe Speaking-Tube Whistle.

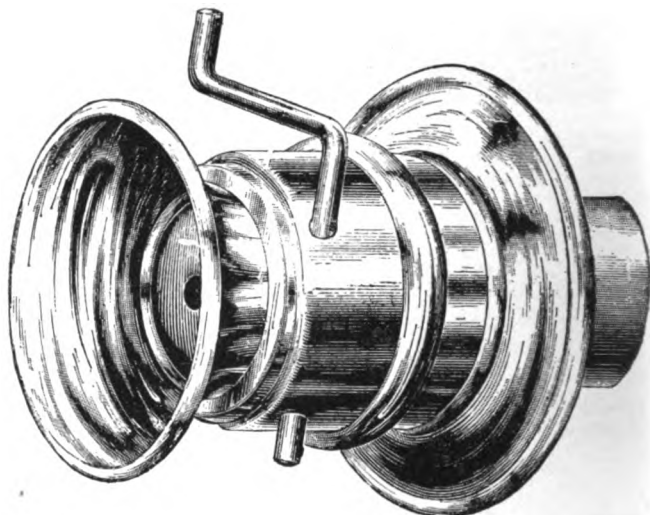


No. 180.

The Globe whistle unscrews in the center of the body, as shown in the cut. These are cast in white metal and nickel plated.

Trade Word. Price.
Licensing. With indicator..... per doz., \$15.00

Flange Whistle.

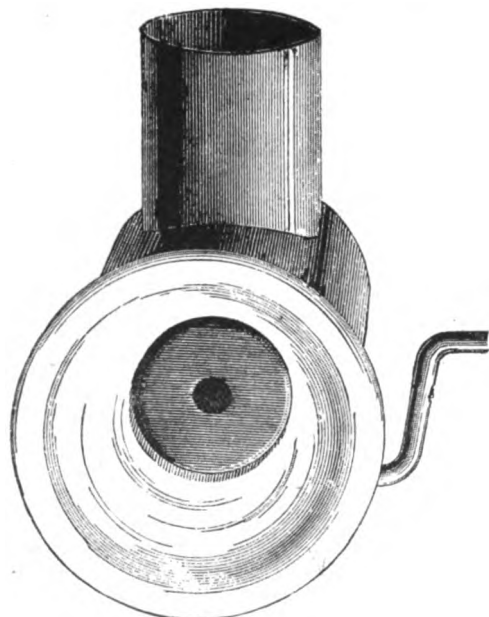


No. 156.

This Flange whistle is conceded by architects to make the best finish for first-class work. The flange and body being made of one piece of metal makes it extra strong.

Trade Word. Price.
Librate. Whistle with indicator, nickel per doz., \$16.00

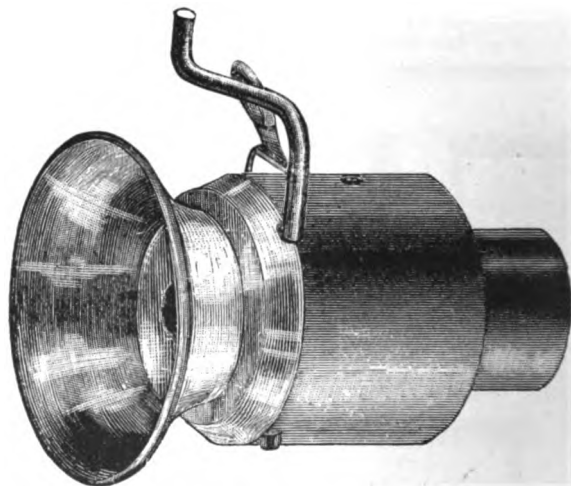
The Elbow Whistle.



No. 162.

Trade Word. Price.
Libation. With indicator, nickel..... per doz., \$ 8.00
" " " "each, .80

The New Round Metal Whistle.



No. 158 1/4.

The round metal whistle is made in a substantial manner and nickel plated on brass. We recommend it as a good medium cost whistle, and adapted for general use. Has lately been remodeled.

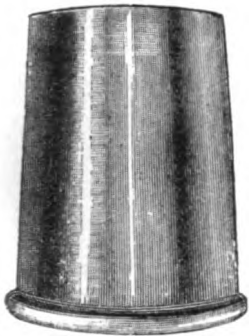
| Trade Word. | Price. | Per gross, in gross lots. |
|---|--------|---------------------------|
| Libeling. With indicator, nickel.... per doz. in doz. lots, | \$2.00 | \$21.00 |
| Libelous. Without " " " " " " " " " " | " 2.00 | 21.00 |
| Transfix. With " oxidized copper, per doz., " | " 3.00 | 30.00 |
| Transfixly. " " polished bronze, " " " " | " 3.00 | 30.00 |

HOUSE GOODS.

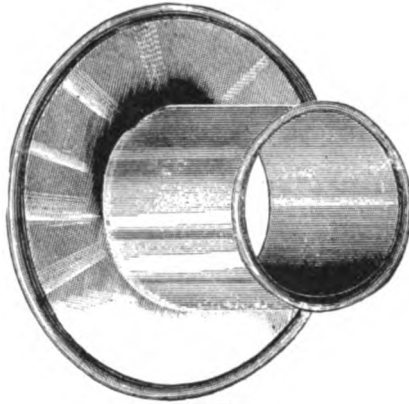
SPEAKING - TUBE SUPPLIES.

Collars.

For protecting ends of flexible tubes.



No. 79.

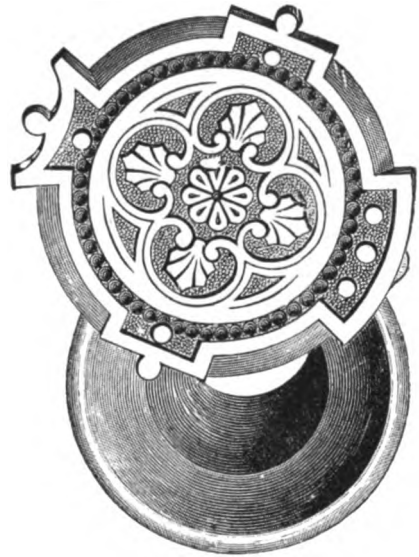


No. 81.

| Trade Word. | | Price per dozen. |
|-------------|--|-----------------------|
| Liberal. | No. 79. Nickel-plated collars for ends.... | In dozen lots, \$1.50 |
| Liberally. | No. 81. Nickel-plated flange collars..... | " " 2.50 |

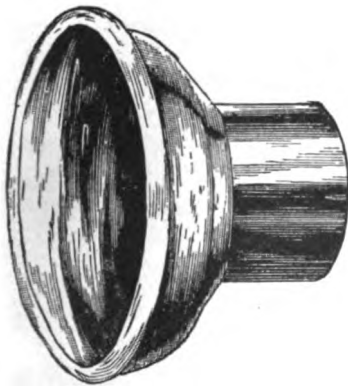
These goods will be furnished in any finish desired at a reasonable advance in price to cover cost of the extra plating.

Swing Cover Mouthpiece.



| Trade Word. | | Price per doz. |
|-------------|-----------------------------------|----------------|
| Liking. | No. 46. Real bronze, ornamented.. | \$4.00 |
| Lilac. | No. 46½. Real bronze, plain..... | 4.00 |

Open Mouthpieces.

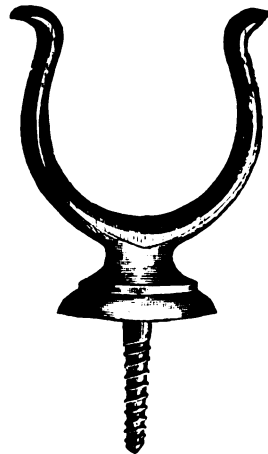


No. 36. No whistle.

| Trade Word. | | Price per dozen. |
|-------------|------------------------------|---------------------|
| Lighten. | No. 36. Round, nickel | \$1.00 |
| Locust. | No. 36. Oxidized copper..... | 1.50 |
| Lode. | No. 36. Pol. bronze.. | 1.50 |

Holders.

For hanging flexible tube.



No. 85.

| Trade Word. | | Price per dozen. |
|-------------|--------------------------------------|---------------------|
| Librarian. | No. 85. Nickel-plated, tube holder.. | \$3.00 |

Roses.



No. 30.

| Trade Word. | | Price per dozen. |
|-------------|--------------------------|---------------------|
| Licentious. | No. 30. Nickel.. | \$0.60 |
| Loess. | No. 30. Oxidized copper. | 1.25 |
| Truantship. | No. 30. Bronze. | 1.25 |

HOUSE GOODS. SPEAKING TUBE SUPPLIES.

Mail Boxes.

These boxes are particularly adapted for use in flats and apartment buildings, for physicians, etc., and are furnished with a good non-pickable lock and have two flat keys. Doors have beveled plate glass windows. These boxes are carried in stock finished in oxidized copper, and sand copper and prices given below apply thereon. Special finishes extra.



Trade Word.
Papaw. Style W., mounted.....

Price.

\$2.50



Trade Word.

Truceless. Style B., mounted....

Price.

\$2.50



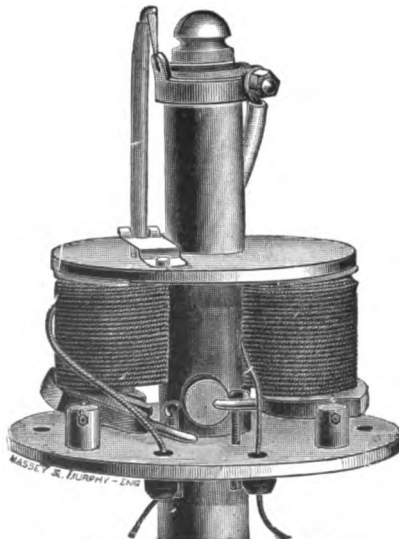
Trade Word.

Papyrus. Style C., mounted ...

Price.

\$2.50

ELECTRIC GAS-LIGHTING SUPPLIES.

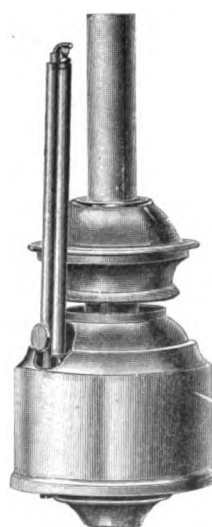


The Boston Automatic Cut full size.

Trade Word.

Price.

Lodge. Boston automatic.....each, \$5.75
Logman. " candle..... " 9.00
Loment. " argand..... " 8.50



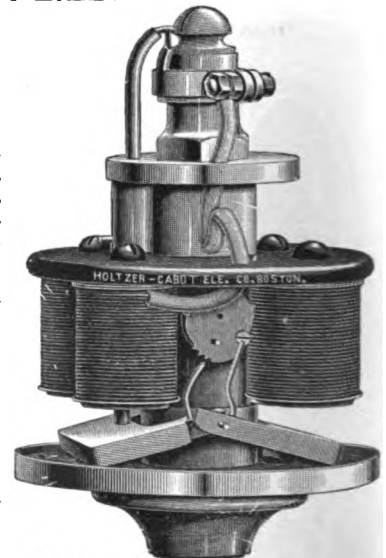
Automatic Burner Incandescent Light Attachment.

Trade Word.

Price.

Tormenting. Each..... \$9.50

To use with genuine Welsbach and similar burners. In making the attachment an auxiliary gas tube is used, carrying a valve, to which is attached a circuit breaker, shown in illustration. Pressing the button of the gas key serves to open the main and auxiliary valves, at the same time operating the circuit breaker. We do not supply any portion of the incandescent gas burner.



The Holtzer Automatic. Cut full size.

Trade Word.

Price.

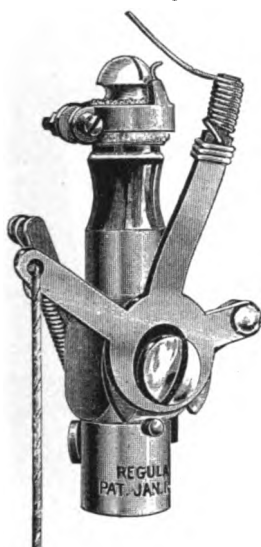
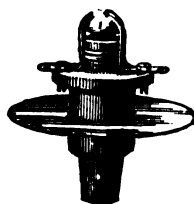
Lodged. Holtzer automatic.....each, \$5.75
Londoner. " candle..... " 9.00
Long. " argand..... " 8.50

HOUSE GOODS.

GAS LIGHTING SUPPLIES.

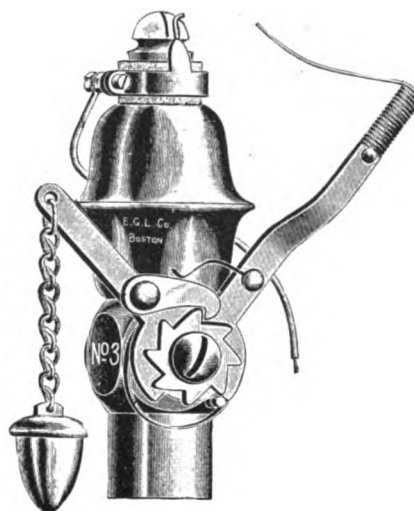
The Improved Regular Burner.

The safest and most certain in operation.
Fitted with check valve to regulate
the flow of gas

**Smith Jump Spark Burner.**

This burner consists of a lava gas tip, provided with a guard flange of mica midway between the upper and lower ends of the tip, insulating the electrodes from the metallic burner pillar. These tips are easily put up, being made to fit the ordinary gas pillar after the old lava tip is taken out.

| | |
|-------------------------|--------------|
| Trade Word. | Price. |
| Lovable. Smith tip..... | each, \$0.70 |

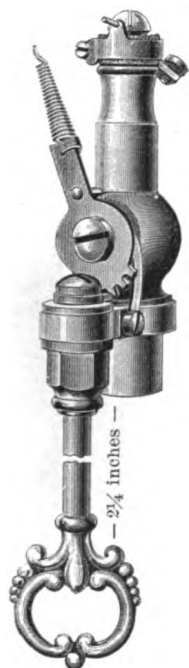
Pendant Ratchet Burner No. 3.

| | | |
|-------------|-------------------------|--------------|
| Trade Word. | No. 3. | Price. |
| Loftiness. | Pendant ratchet burner, | |
| | No. 3 | each, \$1.10 |
| | In doz. lots | " 1.00 |

| | |
|--|--------------|
| Trade Word. | Price. |
| Penumbra. No. 10, "Regular" pull in- | |
| cluded, polished brass | each, \$1.00 |
| In doz. lots | " .90 |
| The same, nickel-plated, 5 cents extra, net. | |

Pendant Chains, Etc.

| | | |
|----------|---------------------|---------------|
| Logwood. | Acorns only | per 100, 3.50 |
| Loin. | Cups and pins | " 1.00 |
| Loiter. | Bead chains | per yard, .25 |

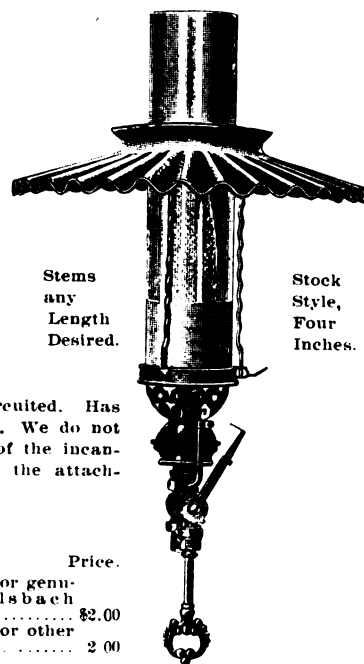
The Advance Stem Burner.

ANY REGULAR GAS SHADE HOLDER CAN
BE USED.

The wiping contact, by an ingenious arrangement, "ducks under" when closing the key, so that the wasteful use of battery power is avoided.

Fitted with check valve to regulate the flow
of gas.

| | |
|-------------|--------------------------|
| Trade Word. | Price. |
| Trygon. | The advance stem burner, |
| | each |
| | In doz. lots |
| | each, \$1.80 |
| | each, 1.60 |

Advance Incandescent Burner Attachment.

Stems
any
Length
Desired.

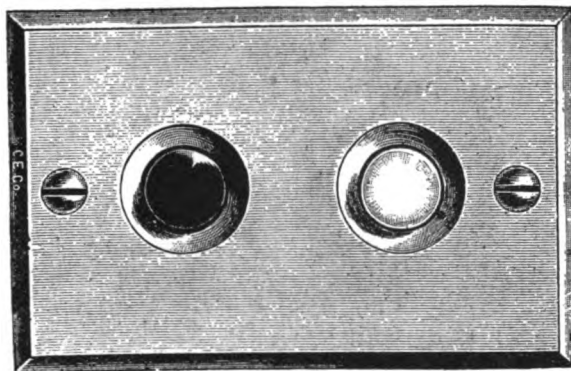
Stock
Style,
Four
Inches.

Cannot be short circuited. Has adjustable pilot flame. We do not furnish any portion of the incandescent burner with the attachment.

| | |
|-------------|-------------------|
| Trade Word. | Price. |
| Torchlight. | Style A for genu- |
| | ine Welsbach |
| | burner |
| | \$2.00 |
| Tormentor. | Style B for other |
| | makes |
| | 2.00 |

HOUSE GOODS.

ELECTRIC GAS-LIGHTING SUPPLIES.



Style A.

Style A—Metal, Nickel Plated Keys.

These keys are finished in nickel plated, light or dark bronze face, with pearl buttons, and rubbing inside contact points enclosed to protect them from plaster, dust and dampness. They have strong screw connections on the outside bottom casing.

| Trade Word. | | | | | Price, plain. |
|-------------|----|-------------|---|------------------|---------------|
| Lovely. | 2 | button key, | 1 | automatic, each, | \$0.45 |
| Loveliness. | 4 | " | " | " | .75 |
| Lovelorn. | 6 | " | " | " | 1.10 |
| Lovely. | 8 | " | " | " | 1.40 |
| Lover. | 10 | " | " | " | 1.80 |
| Lovesome. | 12 | " | " | " | 2.00 |

Style D— Wood Base Keys.

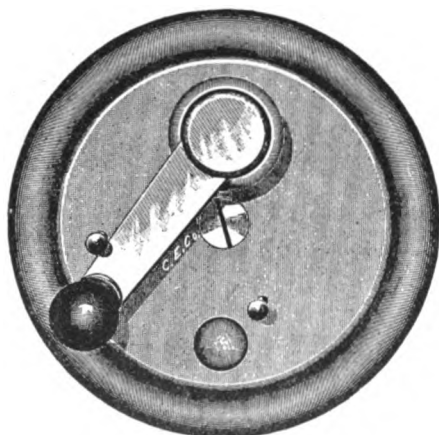
Style D has rubbing inside contact points, celluloid or pearl buttons and nickel trimmings.

State in connection with trade word the kind of wood desired.

| Trade Word. | | | | | Price. |
|-------------|----|-------------|---|-----------|--------|
| Lowly. | 2 | button key, | 1 | automatic | \$0.50 |
| Lowness. | 4 | " | " | " | .80 |
| Loyal. | 6 | " | " | " | 1.10 |
| Loyalist. | 8 | " | " | " | 1.40 |
| Loyally. | 10 | " | " | " | 1.80 |
| Lozenge. | 12 | " | " | " | 2.00 |
| Lubber. | 14 | " | " | " | 2.50 |



Style D.



Wide Base Switches.

These switches are well made and nicely finished in mahogany, black walnut, plain or stained cherry, oak or ash bases.

| Trade Word. | | | | | Price in doz. lots. |
|-------------|----|--------------|-------|--------|---------------------|
| Fatter. | 1 | point switch | each, | \$0.18 | each, \$0.15 |
| Fattest. | 2 | " | " | .20 | .17 |
| Fatted. | 3 | " | " | .25 | .20 |
| Fatting. | 4 | " | " | .30 | |
| Fatal. | 6 | " | " | .55 | |
| Fatalism. | 7 | " | " | .60 | |
| Fatalist. | 8 | " | " | .70 | |
| Fatality. | 10 | " | " | .80 | |

Circular Rubber Base Switches.

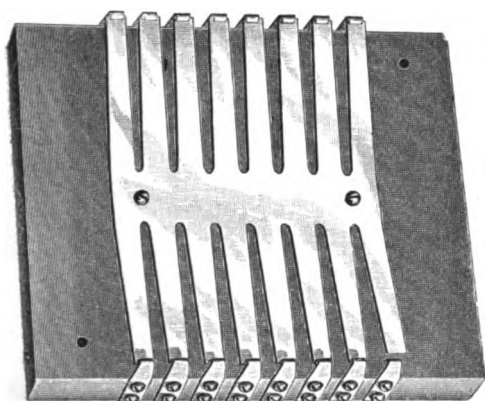
Metal parts nickel plated.

| Trade Word. | | | | | Price. |
|-------------|---|--------------|-------|--------|--------|
| Lucid. | 1 | point switch | each, | \$0.50 | |
| Lucidity. | 2 | " | " | .55 | |
| Lucifer. | 3 | " | " | .70 | |
| Luckily. | 4 | point switch | each, | \$0.80 | |
| Luckiness. | 5 | " | " | 1.00 | |
| Luckless. | 6 | " | " | 1.10 | |

HOUSE GOODS.

ELECTRIC GAS-LIGHTING SUPPLIES.

Eclipse Sectional Switch.



Cut of 16 point switch, size 6 x 7 in. Plain cherry wood base.

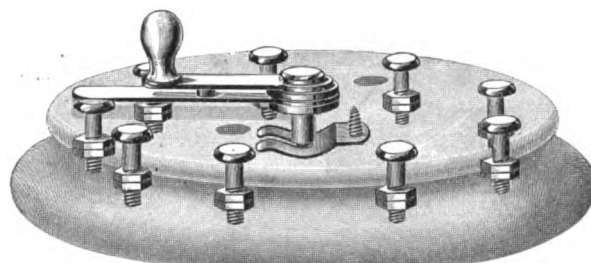
This switch is for use in gas lighting and bell work where circuits are divided up and a one point switch is now used to control them. Common wood switches may warp and the arms loosen, either trouble opening the circuit. There is no chance for loose contacts in this switch and baseboard cannot warp. Cheaper than an arm switch. A single battery contact for all connections. Spring contact is positive and switch occupies but a small space.

| Trade Word. | | Price. |
|-------------|--------------|--------------|
| Fatably. | 4 point..... | each, \$0.80 |
| Traumatic. | 6 "..... | " 1.20 |
| Father. | 8 "..... | " 1.60 |
| Fathom. | 12 "..... | " 2.40 |
| Fathomable. | 16 "..... | " 3.20 |
| Fathomless. | 20 "..... | " 4.00 |

Positive Contact Switch.

This switch is made with two arms which travel together, the lower one being operated by the upper; both are pivoted to the arm bolt.

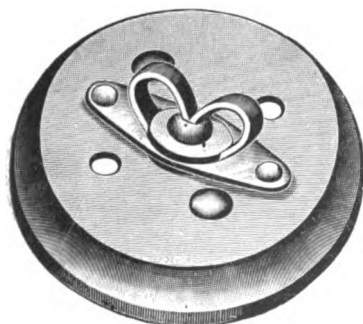
By the use of a spring clip a positive contact is secured at the arm bolt. Recommended where switches are used for telephone circuits.



Oak and black walnut bases.

| Trade Word. | | Price. |
|-------------|--------------|--------------|
| Fatigue. | 1 point..... | each, \$0.65 |
| Fatigued. | 2 "..... | " .70 |
| Fatiguing. | 3 "..... | " .75 |
| Fatness. | 4 "..... | " .80 |
| Fatten. | 5 "..... | " .90 |
| Fattiness. | 6 "..... | " 1.00 |
| Fatty. | 7 "..... | " 1.20 |
| Fatuity. | 8 "..... | " 1.50 |
| Fatuous. | 9 "..... | " 2.00 |
| Fauborg. | 10 "..... | " 2.50 |

Crown Switches.

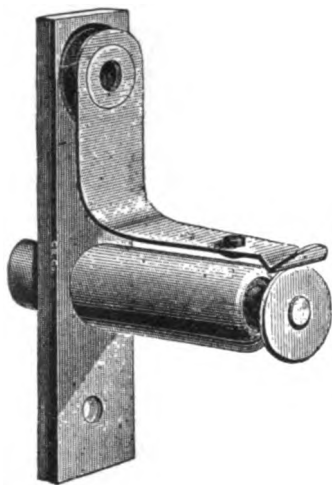


A double break single pole bell switch. The ends of the arms are concaved, securely fitting the points, ensuring a perfect contact and a quick, sharp break.

| Trade Word. | | Price. |
|-------------|--|--------------|
| Faucet. | Mounted on wood base..... | each, \$0.25 |
| Travail. | " " metal " either bronze or nickel plated.... | " .20 |
| Faultless. | " " " " oxidized copper or other finish... | " .30 |

HOUSE GOODS.

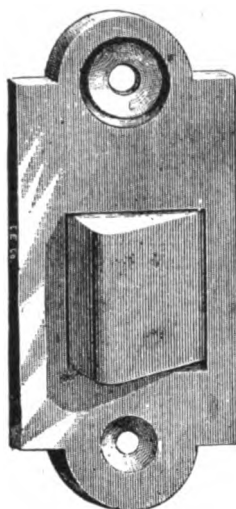
WINDOW AND DOOR SPRINGS.



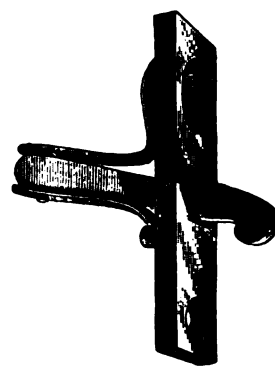
No. 3 Door Spring.



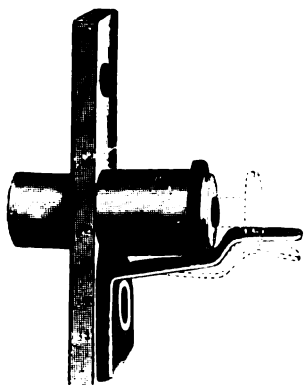
No. 4 Door Spring



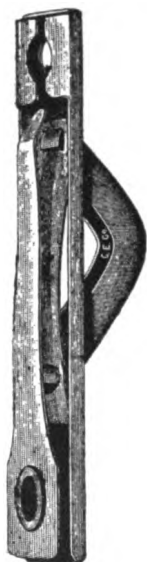
No. 7 Transom Spring.



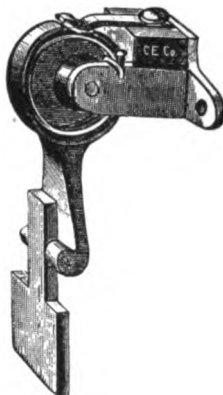
No. 9 Shade Trap Spring.
The shade is fastened to spring under tension; the release gives alarm.



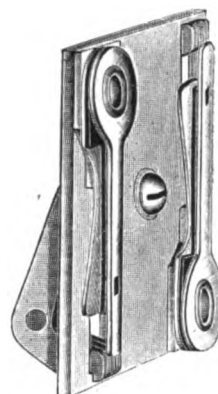
No. 39 Closed Circuit Door Spring.



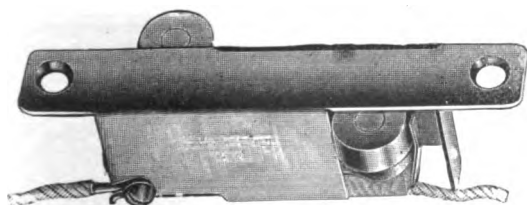
No. 10 Window Spring.



No. 6 Victor Door Trip.



No. 13 Double Window Spring.



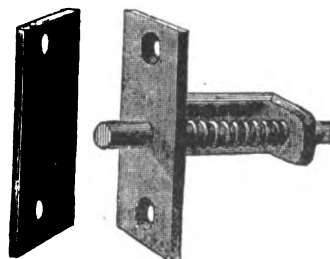
No. 15 Frictionless Double
Window Spring.



No. 16 Counter Spring for Windows.
Made of the best phosphor bronze.

No. 8 Circuit Preserving Spring.
For connecting up shutters and cabinet work in closed circuit alarms and for continuing the circuit from door jamb to door in mounting door openers on double doors, etc.

For prices see next page.



HOUSE GOODS.

BURGLAR ALARM MATERIAL.

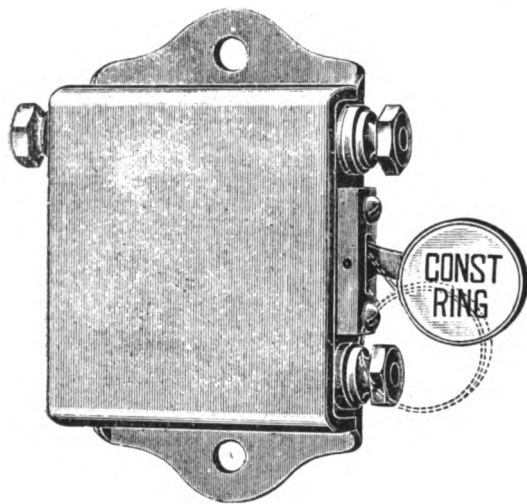
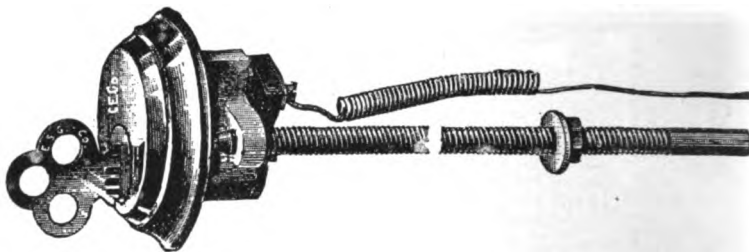
Price List Window and Door Springs.

| Trade Word. | | Per doz. in doz. lots. | Price each. | Trade Word. | | Per doz. in doz. lots. | Price each. |
|-------------|---------------------------|---------------------------|----------------|-------------|---|---------------------------|----------------|
| Lining. | No. 3 door spring..... | \$2.70 | \$0.25 | Loathsome. | No. 20 double window spring..... | \$3.25 | \$0.30 |
| Lizard. | No. 4 spring door..... | 2.00 | .20 | Faulty. | No. 13 double window spring..... | 3.25 | .30 |
| Loadstone. | No. 6 door trip..... | 7.20 | .80 | Trammeled. | No. 39 closed circuit door spring..... | 2.70 | .25 |
| Loafer. | No. 7 transom spring..... | 8.40 | .80 | Locally. | No. 16 counter spring.. | 1.75 | .10 |
| Loafing. | No. 8 circuit spring..... | 5.50 | .50 | | | | |
| Loam. | No. 9 shade spring..... | 6.00 | .60 | | | | |
| Loathful. | No. 10 window spring..... | 2.70 | .25 | | | | |

YALE LOCK BURGLAR ALARM SWITCH.

Placed on the doors of stores, residences and other buildings connected with burglar alarm systems, so that persons having the proper keys can go in or out of the building without ringing the alarm.

| Trade Word. | Price. |
|----------------------|--------|
| Locksmith. Each..... | \$3.75 |



AUTOMATIC DROP OR CONTINUOUS RINGING ATTACHMENT.

For use upon battery or telephone circuits. The closing of the main circuit causes lever to drop, thereby closing the circuit upon the local battery, causing bell to ring until lever is restored.

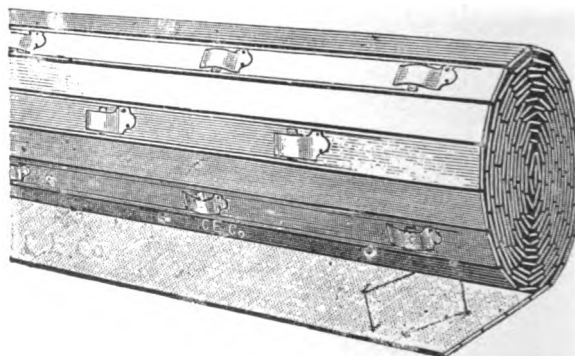
| Trade Word. | Price. |
|-------------------------------------|--------|
| Favored. For use with battery..... | \$1.50 |
| Favoring. For use with magneto..... | 2.00 |

APPLEGATE ELECTRIC FLOOR MATTING.

For open circuit.

This matting, which can be placed under carpet, renders it impossible for a burglar to enter a house without giving the alarm. The use of this article permits the leaving open of doors and windows at night for ventilation. Connection can be made with the ordinary bell circuit and operated without additional expense.

| Trade Word. | Price. |
|---|--------|
| Locating. 24 in. wide. per square foot..... | \$0.30 |
| Loablolly. 30 in. wide. per square foot..... | .30 |
| Loablollyboy. 30 in. wide. per square foot..... | .30 |



HOUSE GOODS.

BATTERY MOTOR OUTFITS.

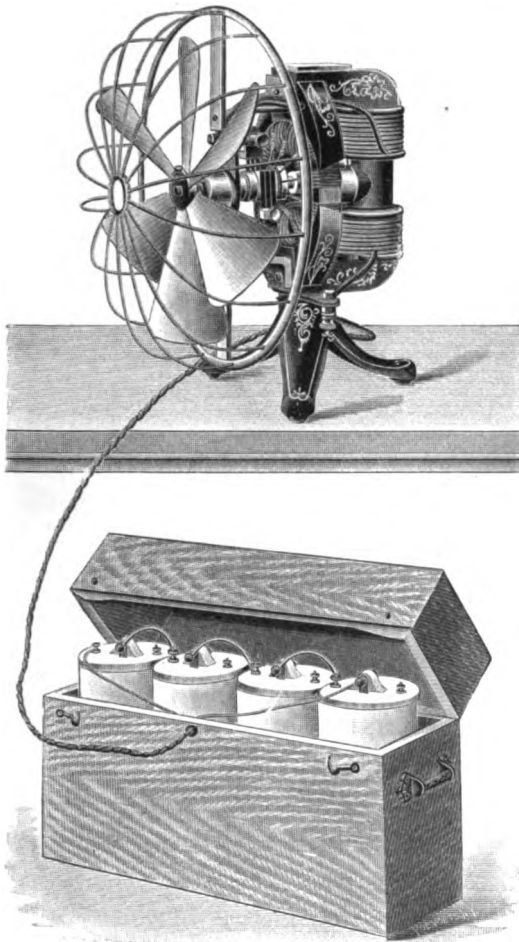
**Edison Nine Inch Battery Fan Motor
Outfit (No. 1).**

Consisting of 4 Edison-Lalande cells, type "S," porcelain jars, in polished oak box, 25 inches long, 8 inches wide, 15 inches high, Edison battery motor with 9 inch fan and guard, and battery cords.

The motor with fan occupies a space 10 x 12 inches. It is absolutely noiseless and the most efficient battery fan motor on the market.

| Trade Word. | | Price. |
|-------------|---|---------|
| Naïol. | Outfit, complete, with charge to run 125 hours..... | \$40.00 |
| Naïve. | Edison battery motor only, with 9 inch fan and guard..... | 27.00 |

For complete renewals for type "S" batteries see page 420.



**Edison Seven Inch Ironclad Fan Motor
Outfit (No. 2).**

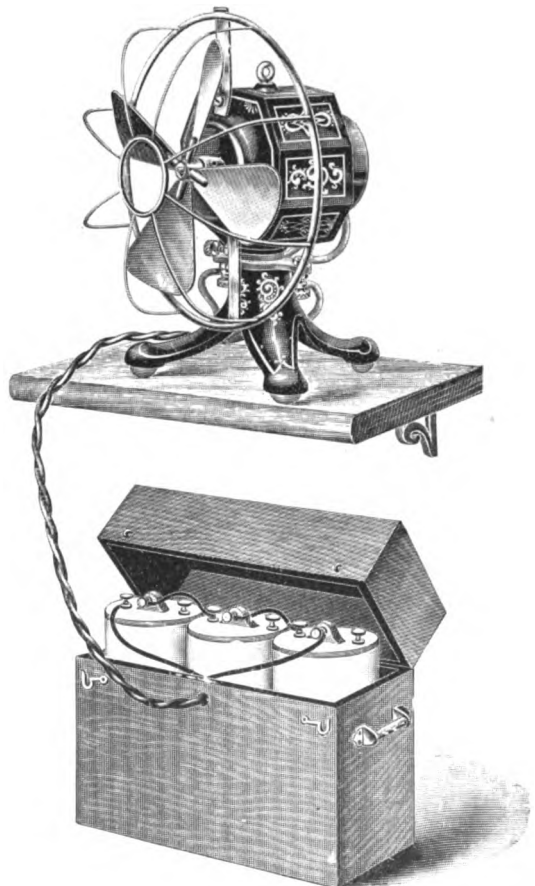
Including motor with 7 inch fan and battery cords, 3 Edison-Lalande cells, porcelain jars, type "S" (in polished oak box 18¾ inches long, 8 inches wide, 15 inches deep), with charge to run motor 150 hours.

We wish to call special attention to the following advantages in this motor which are possessed by none other in the market.

It is noiseless, has self-oiling bearings and is entirely enclosed in an ironclad case, being provided with glass window at rear for regulation of brushes. The workmanship is of the very highest grade.

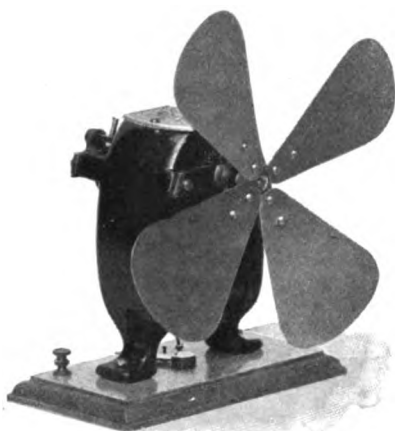
When ordering renewals for this outfit always state for type "S."

| Trade Word. | | Price. |
|-------------|---|---------|
| Naïvette. | Outfit, complete | \$25.00 |
| Trodden. | Edison ironclad battery fan motor, with 7 inch fan..... | 15.00 |

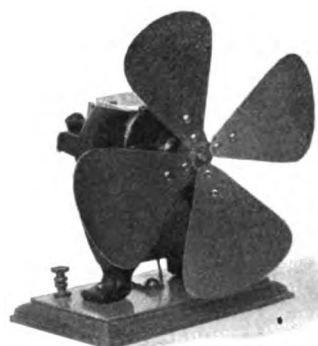


HOUSE GOODS.

PREMIER BATTERY MOTORS.



No. 3, 8 inch fan.



No. 2, 6 inch fan.

The premier motors are furnished in three sizes; being well constructed of the best materials and for small rooms cannot fail to do good service within the limits designed.

The No. 1 is provided with a 4 inch fan and small pulley. One cell of improved Fuller or two cells of Edison-Lalande battery are sufficient.

The No. 2 is provided with a four blade fan about six inches in diameter. Three cells of "type Q" Edison-Lalande battery will operate it for about 110 hours at about 1100 revolutions per minute; four cells of "type S" Edison-Lalande battery will operate it for about 200 hours at about 1400 revolutions; two cells of improved Fuller will operate it for about 100 hours at 1200 revolutions per minute.

The No. 3 is provided with a four blade fan about eight inches in diameter; eight cells "type S" Edison-Lalande battery will operate it for about 200 hours at 1500 revolutions per minute, smaller number of cells at proportionately less speed; three cells of storage battery will operate it at same speed. Motor requires about $1\frac{1}{2}$ amperes. Motor is attached to a nicely finished wooden base on which are placed the binding posts and switch; is very efficient and serviceable.

| Trade Word. | Number. | Price without battery. |
|-----------------|---------|------------------------|
| Prevail..... | No. 1 | \$3.50 |
| Prevailed..... | No. 2 | 6.50 |
| Prevailing..... | No. 3 | 9.00 |

When battery outfits are sold and delivered in good order they cannot be returned.

HOUSE GOODS.

BATTERY MOTOR OUTFITS.

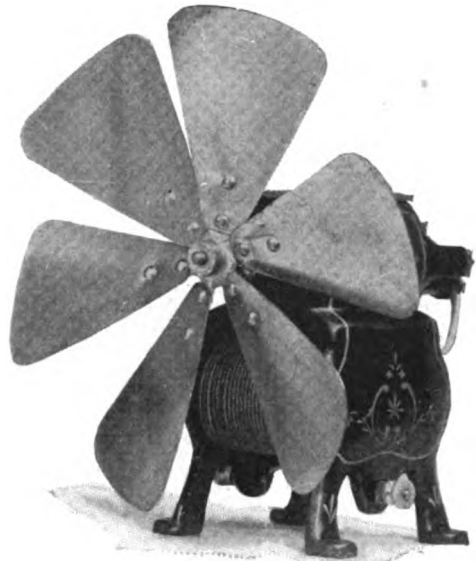
The Porter Battery Motors.

These motors have a well earned reputation and are recognized as standard articles. Nos. 1 and 2 are in fact toy motors, but will do nicely in operating small fans and mechanical toys. No. 3 will run a jeweler's lathe, and is recommended where the work is not too heavy. No. 4 is an ideal battery motor for sewing machines, dental lathes, etc.

DIRECTIONS FOR USE OF PORTER MOTORS.

See that the brushes are properly adjusted, bearing lightly on commutators for light current and more heavily for stronger currents. Use small amount of sperm oil on the bearings, taking care that none gets on the commutator.

Type "S" Edison-Lalande battery is recommended to operate these motors.



Showing Style of Porter No. 1.

| Trade Word. | Number. | Size in Inches. | Voltage Required | Horse Power. | Size of Fan. | Price each, Motor and Fan. |
|--------------------|---------|-----------------|------------------|--------------|--------------|----------------------------|
| ..... | Ajax. | 2½ x 3 | 2 | ¼ | 3 inches. | \$ 2.00 |
| Luscious | 1 | 3½ x 3½ | 2 | ½ | 4 " | 5.00 |
| Lusciously | 2 | 4 x 4 | 4 | 1½ | 5 " | 7.00 |
| Lusciousness | 3 | 4½ x 4½ x 5½ | 6 | 1½ | 6 " | 13.00 |
| Luster | 4 | 5 x 5 x 6½ | 10 | 1 | 10 " | 17.00 |

The Edison Exhibition Phonograph Battery.

Consisting of 4 liquid tight steel cells, type "V," capacity 150 ampere hours, in polished oak case, with strap for carrying same.

Trade Word. Price.
Falsity. Complete.....\$12.00

This battery will run the phonograph for 50 hours with single charge, and as it is absolutely liquid tight, it is specially recommended for traveling exhibition work.

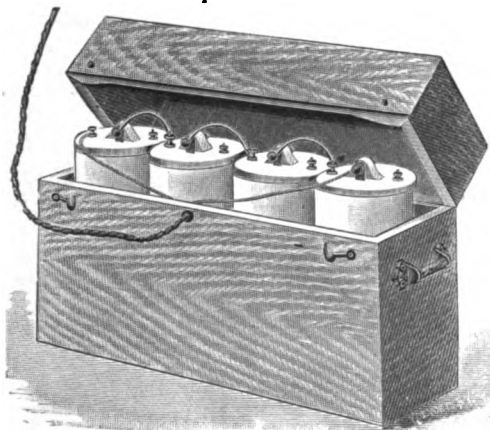
Trade Word.
Familiar. Price of renewal parts for 4 "V" cells (see above), \$3.00.

Edison Phonograph Battery for Stationary Work.

Consisting of 4 Edison-Lalande cells type "S" (300 ampere hours), in lead lined, polished oak box and battery cords.

Trade Word. Price.
Falter. Outfit complete.....\$15.00
Tritheism. Renewal of parts for 4 "S" cells..... 4.76

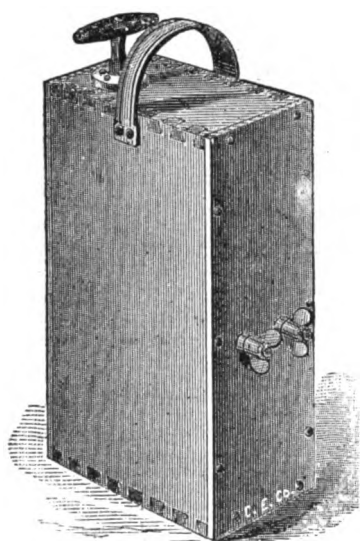
This battery will run the phonograph for 100 hours with a single charge.



STATIONARY BATTERY.
Size, 25½ in. x 8 in. x 15 in.

HOUSE GOODS.

ELECTRO-MAGNETO BLASTING MACHINES.



Smith's Magneto Blasting Machines.

DIRECTIONS.

Lift the toothed rod to its full length, then press it down, for the first inch of its stroke, with moderate speed, but finishing the stroke with all force, bringing the rod to the bottom of the box with a solid thud, and the blast will be made.

CAUTION.—It has been learned that some persons, in using the machine, move the rack bar several times up and down, with a churning motion, before giving the final stroke. There is no reason in this practice, and it is likely to damage the machine or make it entirely useless.

The Smith blasting machine is a magneto-electric instrument of small size, weighing only about twenty-two pounds, occupying considerably less than one-half a cubic foot of space.

It is constructed on the Wheatstone and Siemen's principle, having a magnet of the horseshoe character, of iron, wound about with coils of insulated copper wire; between the poles of the magnet there is fitted to revolve an armature of cylindrical construction, carrying in its body other insulated wire, coiled longitudinally, as to the cylinder.

| Trade Word. | No. | | Price. |
|-------------|-----|-------------------------------|---------|
| Favorable. | 3. | Will fire 10 to 20 holes..... | \$25.00 |
| Favorite. | 4. | " 20 to 40 " | 50.00 |

The Victor Blasting Machines.

DIRECTIONS.

Place the handle over the arrow point marked on the box, turn it downward with a very quick and sudden jerk, and the blast will take place. Half a turn of the handle from the mark is sufficient; but if failing to go off first time, repeat same motion more quickly. The firing will never fail if you push quickly, as directed. The strength of current depends on the rapidity with which the handle is turned.

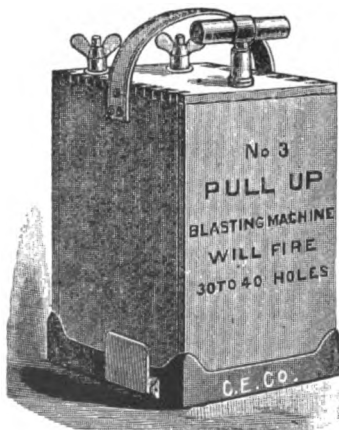
| Trade Word. | No. | | Price. |
|-------------|-----|-----------------------------|---------|
| Confab. | 1. | Will fire 5 to 8 holes..... | \$15.00 |



"Pull-Up" Blasting Machines.

DIRECTIONS.

To fire with a "Pull-Up" machine, turn down the hinged iron plates at the bottom of the box, stand on these plates to hold the machine firmly down, then pull up the bar quickly with one continuous stroke—with both hands—when the blast will take place. After firing the bar will drop back into place, and it is ready to be used again. Make sure the bar is all the way down when starting to pull it up. The quicker you pull up the bar the more current the machine will generate. In pulling up the bar increase the stroke as you come up, but don't stop half way; it must be one continuous stroke from start to finish.



| Trade Word. | No. | | Price. |
|-------------|-----|-------------------------------|---------|
| Favoritism. | 3. | Will fire 10 to 20 holes..... | \$25.00 |
| Fawn. | 4. | " 30 to 40 " | 50.00 |
| Fay. | 5. | " 50 to 75 " | 75.00 |

HOUSE GOODS.

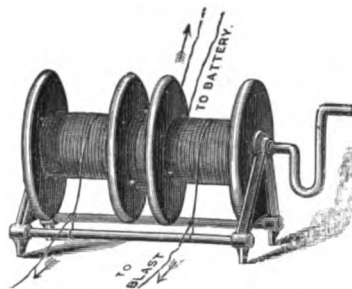
ELECTRO-MAGNETIC BLASTING APPARATUS.

Leading Wire.



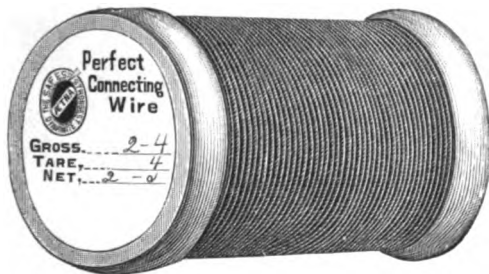
| Trade Word. | Price. |
|---|--------|
| Fealty. Leading wire, common, in 500 ft. coils.....per foot, \$0.01 | |
| Fear. Aetna cable leading wire....per coil, 5.00 | |

Leading Wire Reel.



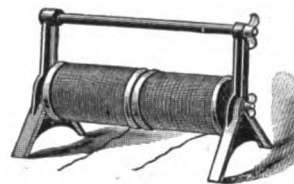
| Trade Word. | Price. |
|--|--------|
| Trappous. Leading wire reels..... each, \$4.00 | |

Connecting Wire.



| Trade Word. | Price. |
|---|--------|
| Feared. 1 lb. spool.....per lb., \$0.30 | |
| Fearing. 2 " " "....." .30 | |
| Fearful. 5 " " "....." .30 | |
| Fearfully. 10 " " "....." .30 | |

Connecting Wire Holder.



| Trade Word. | Price. |
|---|--------|
| Fearfulness. Connecting wire holders.....\$2.00 | |

Improved Electrical Fuses.



Cut nearly actual size.

A, the shell of copper, having a corrugation, thrown out from the inside, which holds the sulphur cement more firmly in place. B, chamber containing the charge of explosive, composed mainly of fulminate of mercury—very powerful. C, the copper wires entering the shell, having a covering which is a partial insulator sufficient for all ordinary purposes. D, the bare ends of the copper wires, projecting above the sulphur cement and into the charge. E, the very fine platinum wire, or bridge, soldered to or connecting the two ends of the wires, which is heated to redness or combustion by the passage of the electric current. F, the sulphur cement holding the wires firmly in place.

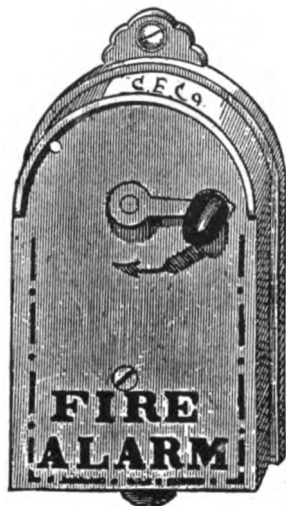
| Trade Word. | Price. | Trade Word. | Price. |
|---|--------|---|--------|
| Confess. Cotton covered, 4 ft. wires, per 100, \$3.00 | | Confidently. Cotton covered, 18 ft. wires, per 100, \$ 6.78 | |
| Confessedly. " " 6 " " " 3.54 | | Confiding. " " 20 " " " 7.32 | |
| Confessing. " " 8 " " " 4.08 | | Confine. " " 22 " " " 8.32 | |
| Confessor. " " 10 " " " 4.62 | | Confirm. " " 24 " " " 9.32 | |
| Confidant. " " 12 " " " 5.16 | | Confiscate. " " 26 " " " 10.32 | |
| Confide. " " 14 " " " 5.70 | | Confiscating. " " 28 " " " 11.32 | |
| Confidence. " " 16 " " " 6.24 | | Confiscator. " " 30 " " " 12.32 | |

HOUSE GOODS.

FIRE ALARM SUPPLIES.

DISTRICT CALL BOXES.

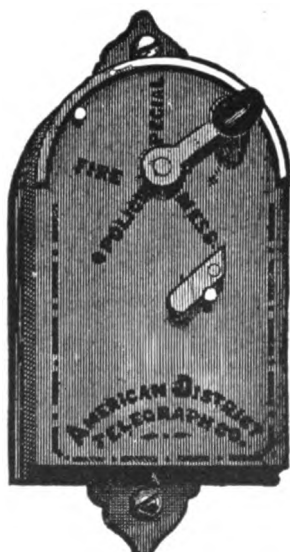
No. 5 Fire Alarm Box.



This box is fitted with an extra heavy movement and strong spring, and is handsomely finished; will do as good work as the high-priced boxes; can be enclosed in an outside street box, with lock and key.

| Trade Word. | Price Each. |
|-------------------------------------|-------------|
| Executive. Without outside box..... | \$6.00 |
| Lots of 25..... | 5.50 |

No. 2 Western Union or American District Call Box.

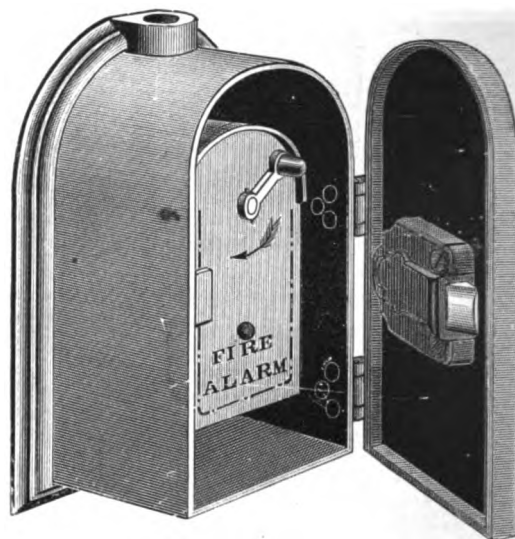


This box is fitted with a 4-call movement, having a stop on the inside that prevents the crank from passing the word "Mess." It can be furnished in any desired color, and stenciled for four calls, or with any name, at short notice.

| Trade Word. | Price. |
|--------------------------------|--------|
| Executioner. 1 or 4 calls..... | \$3.00 |

No. 5 Fire Alarm Box.

Fitted in outside street box, with Yale lock and key.



This outfit makes a cheap and reliable fire alarm box for small towns; waterproof and air tight. Also used for patrol box; fitted with 4-call box.

| Trade Word. | Price Each. |
|---------------------------|-------------|
| Executive. Case only..... | \$0.00 |
| Lots of 25..... | 8.00 |

No. 13, or Five-Call Box, with Release.



This box is neat in appearance, black dial, gilt letters; nickel plated ring and glass over pointer. In case pointer is set on wrong call, it can be returned to the arrow without sending in the call.

| Trade Word. | Price. |
|-----------------------------------|--------|
| Limbo. No. 13, or 5-call box..... | \$5.00 |

HOUSE GOODS.

FIRE ALARM SUPPLIES.



No. 15, or New Pattern Five-Call.

No. 15, or New Pattern Five-Call.

Box painted and japanned any color and stenciled to order.

| | |
|---------------|--------|
| Trade Word. | Price. |
| Limbate. | \$4.00 |

No. 16, or Pull-Down Fire Alarm Box.

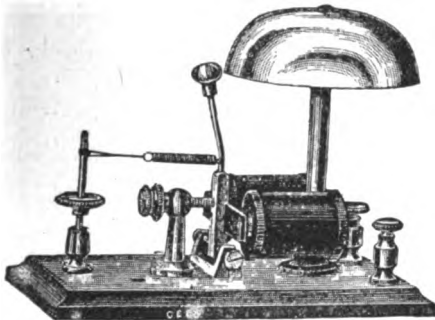
Repeats five times. For hotels, public offices, etc.

| | |
|-----------------|--------|
| Trade Word. | Price. |
| Exemplary. | \$6.50 |



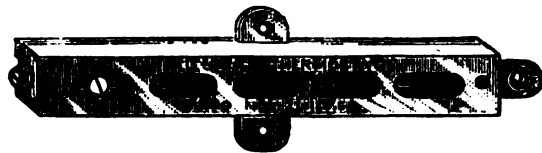
No. 16, or Pull-Down Fire Alarm Box.

Oblong Base District Signal Bell.



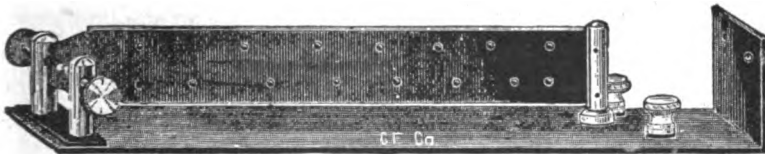
| | |
|--|--------|
| Trade Word. | Price. |
| Exhaustment. Mounted on a polished black walnut base.....each, | \$5.00 |

Electric Fire Alarm Thermostat.



The electric thermostat is for use in automatic fire alarm systems, for signaling the rise in temperature wherever they may be placed, through an electric circuit and alarm bell.

| | |
|--|--------|
| Trade Word. | Price. |
| Exhilarated. Electric thermostat.....each, | \$1.50 |



Adjustable Thermostat.

| | |
|---|--------|
| Trade Word. | Price. |
| Exhort. Adjustable thermostat.....each, | \$3.50 |

Copenhagen Thermostat.

The "Copenhagen" possesses every good quality to be desired, without one single fault—is absolutely reliable.

1st. Its construction is simplicity itself—it cannot get out of order.

2nd. Contact is positive—made with a sharp snap.

3rd. It is dust proof.

4th. No limit to the number of times it may be tested.

5th. Impossible for circuit to be closed accidentally, by jarring or otherwise.

6th. No matter how long in use it can never change.

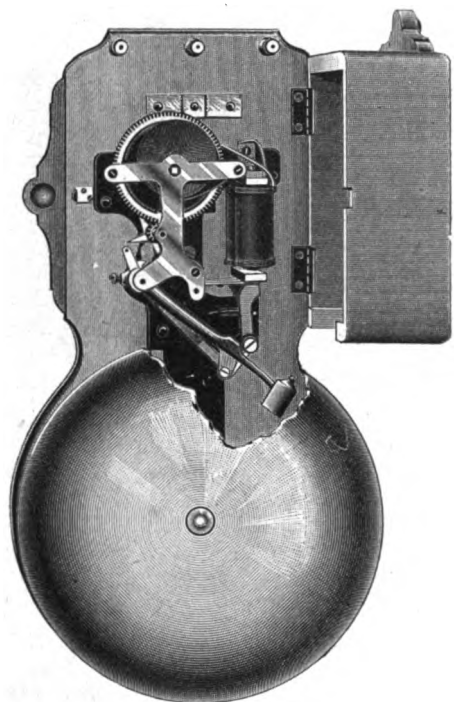
We can furnish the "Copenhagen" to act at any desired degree of heat.

| | |
|--|--------|
| Trade Word. | Price. |
| Torpedo. Copenhagen thermostat.....each, | \$1.50 |



HOUSE GOODS.

FIRE ALARM SUPPLIES.



Star Electric-Mechanical Gong.

8 to 10 ohms.

The "Star" gong is designed for use on railroads, in fire department stations, factories, engine rooms, school houses, etc., where loud and unerring alarms are requisite.

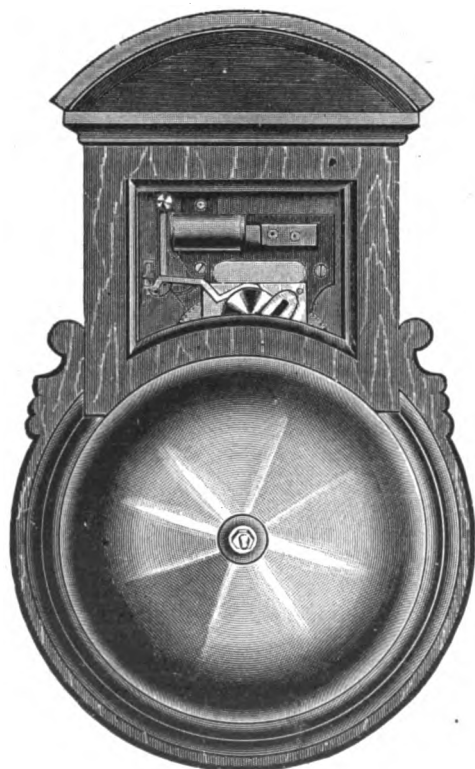
One winding of the spring will strike over three hundred blows upon the gong.

The instrument is provided with lightning arrester, and is mounted in handsomely finished black walnut or oak cases, with glass fronts.

Open or closed circuit or continuous ringing attachments are furnished without additional cost.

| Trade Word. | | | Price. |
|---------------|--------|------------|---------|
| Torpescent. | 8 inch |each, | \$24.00 |
| Torpidity. | 16 " |" | 32.00 |
| Torpidly. | 12 " |" | 35.00 |
| Torpidness. | 14 " |" | 40.00 |
| Torpidifying. | 15 " |" | 42.50 |
| Torpidified. | 16 " |" | 45.00 |
| Torpidude. | 18 " |" | 55.00 |

15 to 30 ohms, \$1.00 net extra.



Gong in ornamental case.

This gong is operated by two springs and is specially designed for fire and burglar alarms, also for use in factories, central stations and other situations where an absolutely reliable gong is required. It will work in connection with Gamewell, Stevens or other systems. Thousands of them are in daily use by municipal fire departments; in hotels, for calling guests in case of fire. They are made for use on open or closed circuits, continuous ringing or single stroke, and will deliver 400 blows with one winding.

In Oak, Ash or Black Walnut Case—Fancy.

| Trade Word. | | | Price. |
|-------------|----------------|-------|---------|
| Longer. | 6 inch gong, C | ..... | \$35.00 |
| Longest. | 8 " | " A.. | 40.00 |
| Longeval. | 10 " | " " | 42.50 |
| Longevity. | 12 " | " " | 45.00 |
| Longevous. | 14 " | " " | 50.00 |
| Longing. | 15 " | " " | 55.00 |
| Longingly. | 18 " | " " | 65.00 |

HOUSE GOODS.

FIRE ALARM SUPPLIES.

ELECTRO-MECHANICAL GONGS.

Dust, insect and moisture proof.

For Use Indoors.

The gong and front are nickel plated. The entire mechanism is attached to the front plate, encased in a polished hardwood box. By removing the three screws which hold the front plate to the box, the entire mechanism may be exposed.

Operated by spring.

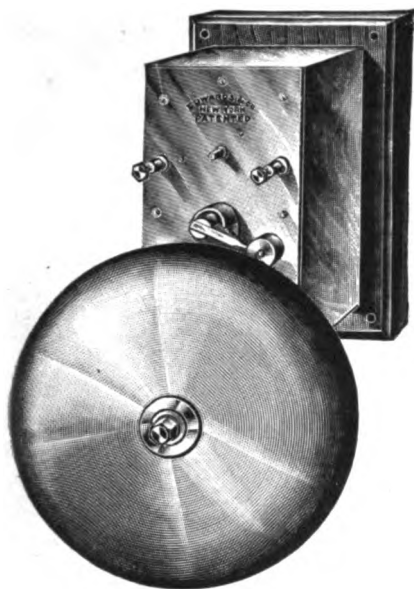
For gongs from 4 to 9 inches.

300 blows to each winding.

Prices (wound to 10 ohms).

| Trade Word. | | Price. |
|---------------|--------------|---------|
| Fearless. | 5 inch | \$17.22 |
| Fearlessly. | 6 " | 17.80 |
| Fearlessness. | 8 " | 20.00 |
| Fearnaught. | 9 " | 22.20 |

For higher resistance add \$2.00.



For Use in Exposed Places.

Is entirely encased in iron and is not affected by the weather.

The mechanism is exceedingly powerful.

Operated by very heavy spring.

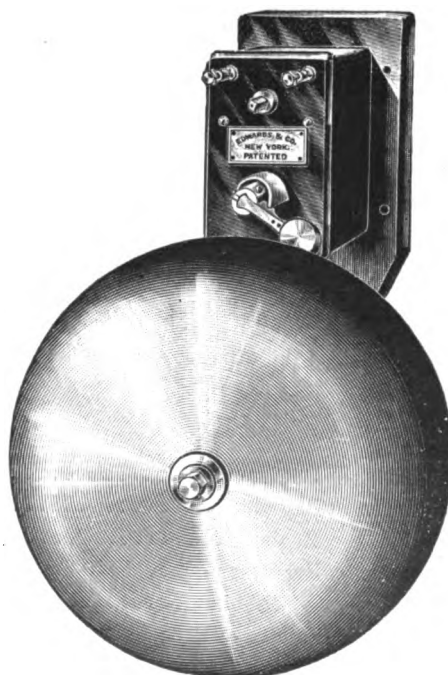
375 blows to each winding.

For gongs from 10 to 18 inches.

Prices (wound to 10 ohms).

| Trade Word. | | Price. |
|---------------|---------------|---------|
| Feasibility. | 10 inch | \$27.72 |
| Feasibleness. | 12 " | 31.20 |
| Trundle. | 14 " | 35.50 |
| Feat. | 15 " | 37.78 |
| Feather. | 16 " | 41.10 |
| Feathered. | 18 " | 48.90 |

For higher resistance add \$2.00.



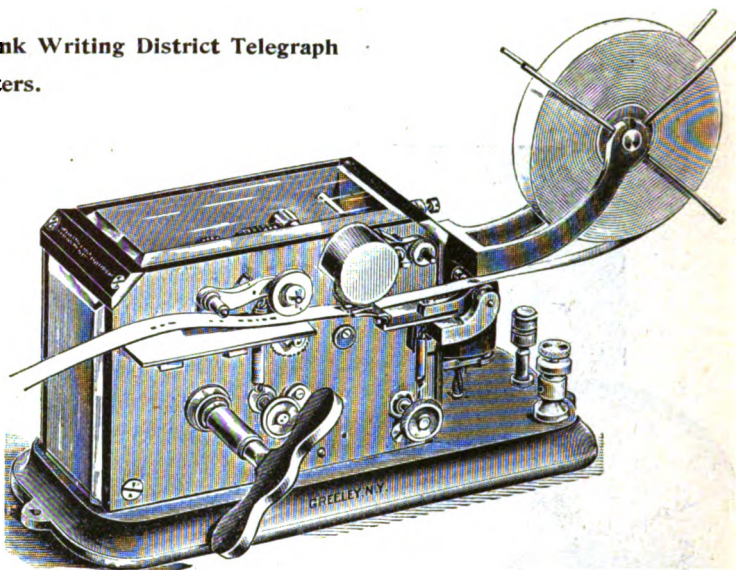
HOUSE GOODS.

FIRE ALARM SUPPLIES.

Self-Starting and Self-Stopping Ink Writing District Telegraph Registers.

These registers embody all of the latest improvements in this class of instruments. They are highly finished, accurate and positive in action.

| Trade Word. | | Price. |
|-------------|-----------------|---------|
| Exact. | Single pen..... | \$90.00 |
| Exacted. | Double pen..... | 95.00 |



Self-Starting and Self-Stopping Ink Writing Fire Alarm Registers.

Unless ordered to the contrary the fire alarm register will be wound to 20 ohms resistance for direct introduction on the main line.

| Trade Word. | | Price. |
|-------------|--------------------------|----------|
| Exactly. | Single pen, 20 ohms.. | \$ 90.00 |
| Exactness. | Double pen, 20 ohms.. | 100.00 |



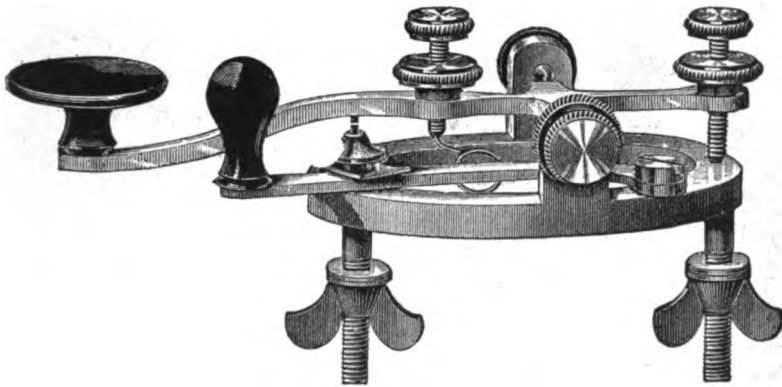
Register Supplies.

| Trade Word. | | Price. |
|-------------|--|--------------------|
| Exigent. | Register ink | per bottle, \$0.55 |
| Exigenter. | Register ink | " pint, 2.50 |
| Exigible. | Register oil..... | " bottle, .55 |
| Exiguous. | Register paper, 5 inch rolls, $\frac{1}{4}$ inch wide, for district telegraph work, on wooden bobbins..... | per lb., .21 |
| Exility. | Same as above, $\frac{3}{4}$ inch wide..... | " .21 |
| Exilition. | Same as above, 1 inch wide..... | " .21 |

HOUSE GOODS.

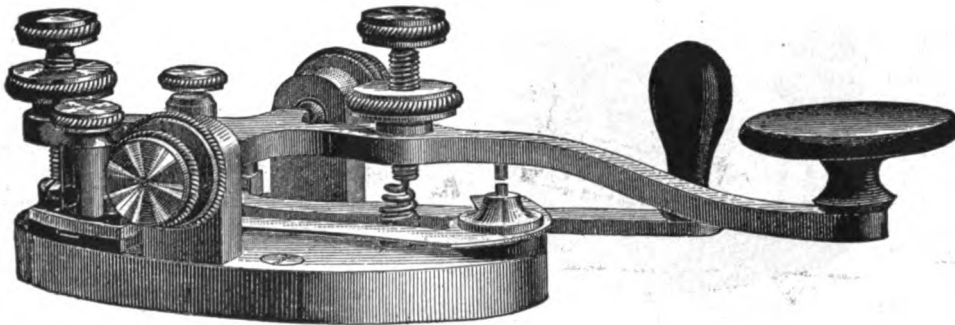
TELEGRAPH INSTRUMENTS.

"The Operator's Favorite."

**Bunnell Leg Key.**

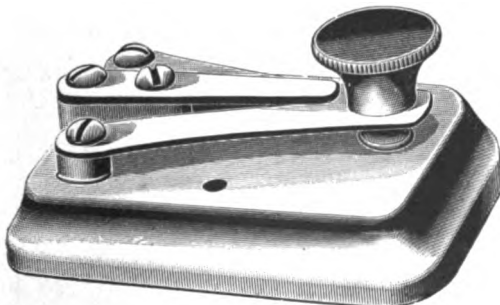
The keys illustrated on this and the following page are more durable and in every respect superior to other keys for rapid and perfect Morse sending. The levers are only one-half the weight of ordinary brass levers. The lever and trunnions are made of *one piece* of fine wrought steel. The common defect of loose trunnions is in this way avoided. Strength is obtained with much less weight of metal, and by the perfect bearings which the solid trunnions give, together with the use of hardened platina points, sticking and side motion are absolutely perfect operating keys possible to

prevented. The size and proportions are such as to make them the most obtain, either for the hand of the expert or the beginner.

Bunnell Legless Key.

In the legless style the cut herewith shows a solid base, but they are now made in skeleton base only, and conform in style, quality and finish to the regular leg key. The legless key is preferable for use on fine desks and other places where it would not be convenient to bore holes for legs.

| Trade Word. | | Price. |
|-------------|---------------------------------|--------|
| Equaling. | Bunnell leg key..... | \$3.00 |
| Equator. | " legless, top connections..... | 3.50 |
| Transiency. | Manhattan leg key..... | 2.00 |
| Transitive. | " legless key..... | 2.25 |

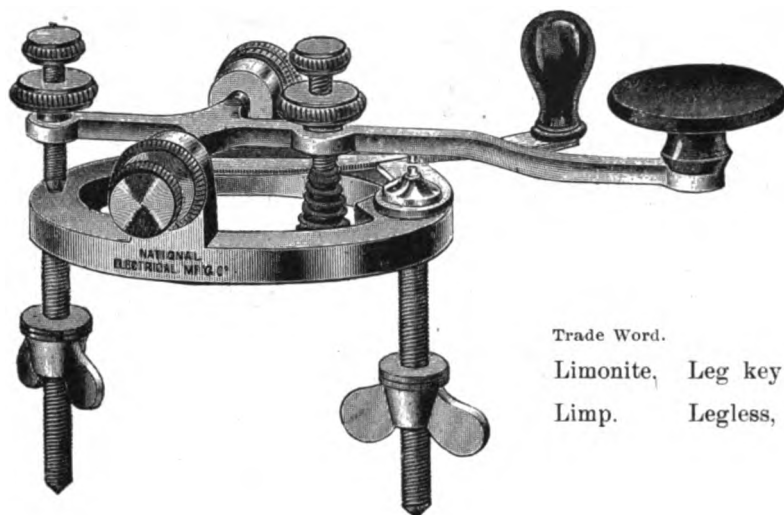
**Strap Keys.**

Nickel plated base and parts. The points cannot become separated or the arm loosened.

| Trade Word. | | Price. |
|-------------|------------------------------|--------|
| Feathering. | Open circuit..... | \$1.00 |
| Feature. | Closed " | 1.00 |
| Febrific. | Closed and open circuit..... | 1.00 |

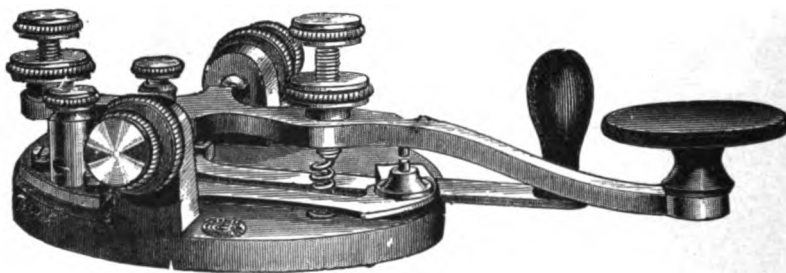
HOUSE GOODS.

TELEGRAPH INSTRUMENTS.



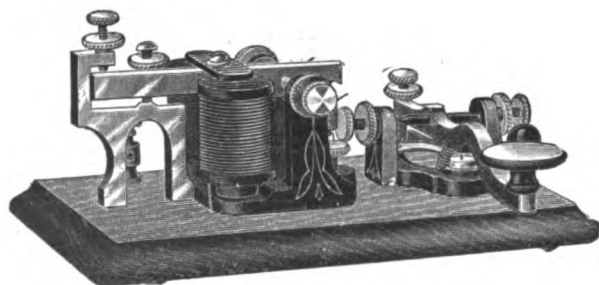
**NATIONAL
STEEL LEVER
KEYS.**

| Trade Word. | Price. |
|-------------------------------------|--------------|
| Limonite, Leg key | each, \$2.25 |
| Limp. Legless, top connections..... | " 2.50 |



SOUNDERS AND RELAYS.

LEARNER SET.



Key and sounder. Polished mahogany base.

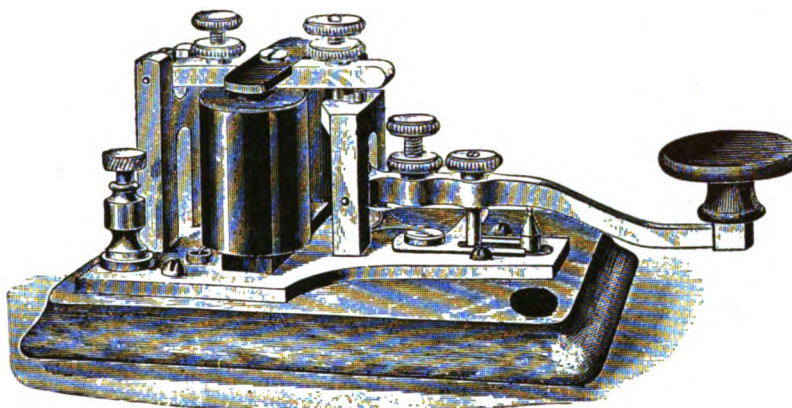
We carry a complete line of instruments for students, including all of the well known favorite styles and combinations. We sell single sounders and keys, or put them up with battery, chemicals, wire and everything necessary for operating, for private practice or on short service line.

| Trade Word. | Price. |
|---|--------|
| Federate. Sounder and key only, mahogany base, 5 ohms..... | \$3.50 |
| Federation. Sounder and key only, mahogany base, 20 ohms..... | 4.00 |

HOUSE GOODS.

TELEGRAPH INSTRUMENTS.

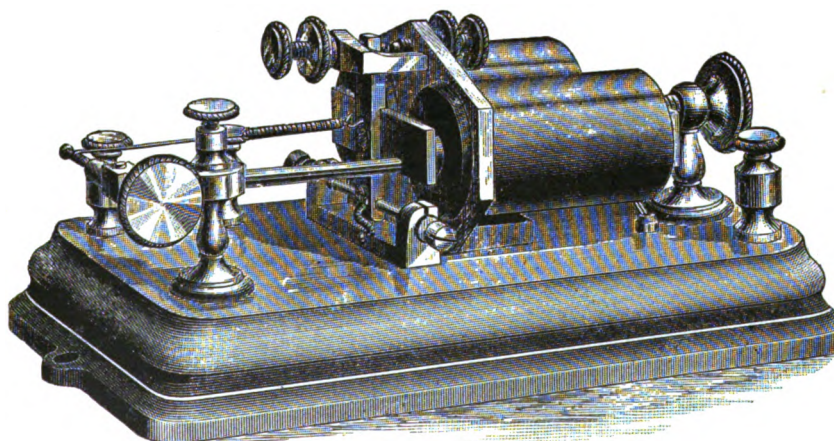
"UNIQUE" COMBINATION LEARNER SET.



This is one of the cheapest, simplest and neatest learner sets in the market. Both key and sounder are mounted on a polished mahogany base. Metal parts are full nickel plated, and the coils protected by hard rubber shells.

| Trade Word. | | Price. |
|-------------|----------------------------|--------|
| Eruption. | Set with 4 ohm coils | \$4.50 |
| Eruptive. | " " 20 " " | 5.00 |

IMPROVED WESTERN UNION STANDARD RELAY.



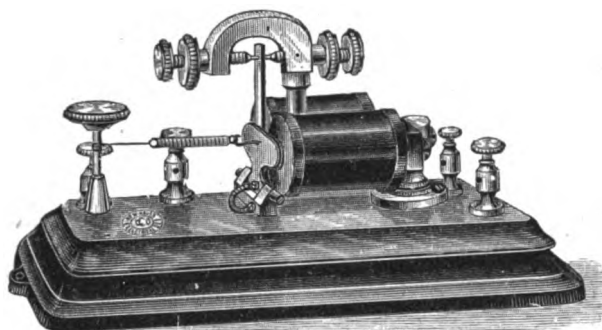
Telegraph metal, hand finished, magnets wound with best quality silk-covered wire, polished rubber-covered coils, mahogany base, mounted on ornamental sub-base, extension adjustment.

| Trade Word. | | Price. |
|-------------|--------------------------------|--------|
| Ling. | Standard relay, 150 ohms | \$6.50 |
| Linget. | " " 160 to 200 ohms | 7.20 |
| Tunic. | " " 225 to 300 " | 7.70 |

HOUSE GOODS.

TELEGRAPH INSTRUMENTS.

PONY RELAY.



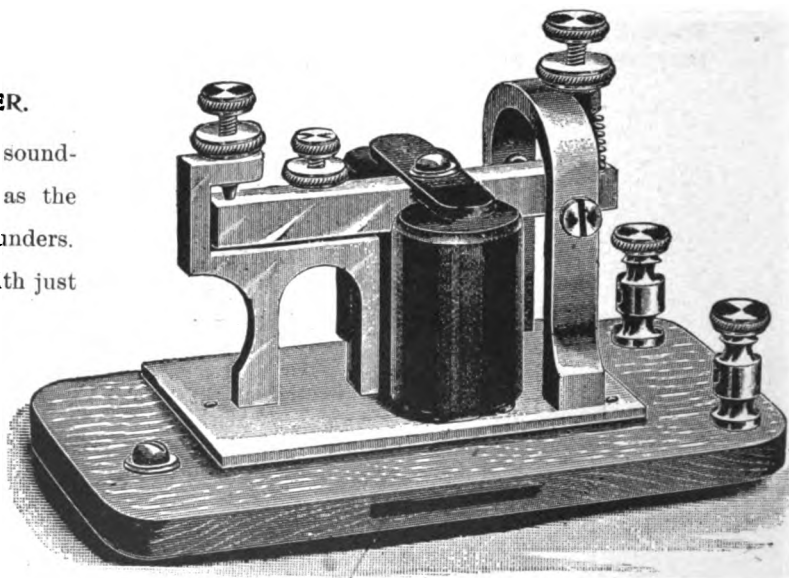
Telegraph metal, hand finished ; mounted on solid polished mahogany base with metallic sub-base.

| Trade Word. | | Price. |
|-------------|--------------------------------|--------|
| Essay. | Resistance, 20 ohms. Manhattan | \$4.00 |
| Essayed. | " 50 " | " 5.00 |
| Essaying. | " 75 to 100 ohms. " | " 7.00 |
| Transitory. | " 20 ohms. Bunnell | 4.50 |
| Translate. | " 50 " | " 6.00 |
| Translund. | " 75 to 100 ohms. " | " 7.00 |

The above type of relay, wound to 100 ohms resistance, is extensively used by district telegraph and fire alarm companies.

BUNNELL GIANT SOUNDER.

The improved Bunnell giant sounder, as illustrated, is recognized as the **Best** standard of excellence in sounders. It gives a loud, clear sound with just half the amount of local battery generally required with other forms of sounders. Made with aluminum lever.



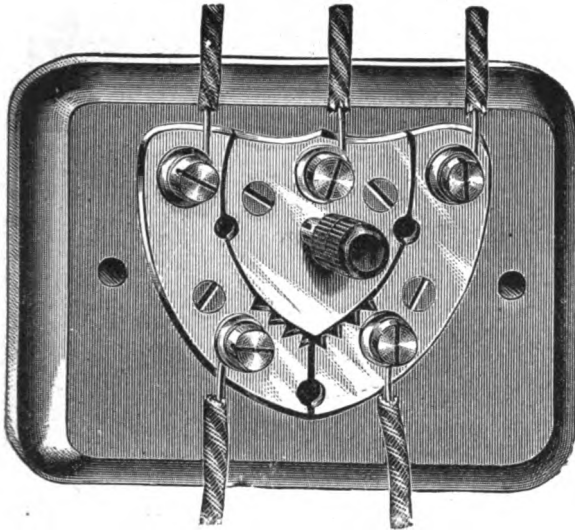
| Trade Word. | | Price. |
|--------------|--|--------|
| Erased. | Local sounder, wound 4 ohms | \$3.50 |
| Erasurement. | Sounder for main line use, without a relay, lines up to 15 miles, 20 ohms | 4.50 |
| Triturate. | Manhattan local sounder, 4 ohms | 3.25 |
| Triumph. | Manhattan sounder for main line use, without a relay, lines up to 15 miles, 20 ohms .. | 3.75 |

HOUSE GOODS.

TELEGRAPH INSTRUMENTS.

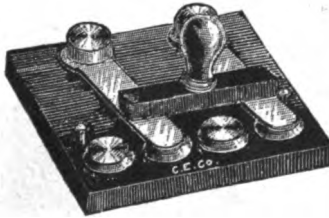
SWITCHES AND CUT-OUTS.

"Shield" Pattern.



| | | |
|-------------|--------------------|--------|
| Trade Word. | | Price. |
| Estray. | Hardwood base..... | \$1.00 |

Pole-Changing Switch.



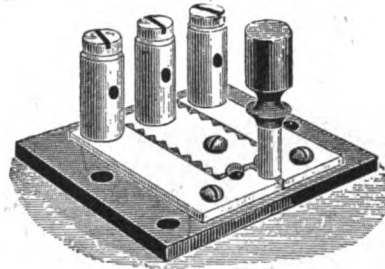
| | | |
|-------------|--|--------|
| Trade Word. | | Price. |
| Evaporate. | Hard rubber base, with wire terminals..... | \$1.50 |
| Evaporated. | " " " " post terminals..... | 2.00 |
| Fee. | Wood base, with post terminals..... | 1.50 |

Switch Pin.



| | | |
|-------------|--|--------|
| Trade Word. | | Price. |
| Load..... | | \$0.30 |

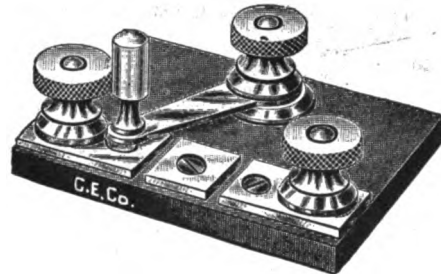
Private Line Cut-out.



| | | |
|-------------|---------------------|--------|
| Trade Word. | | Price. |
| Etch. | With wood base..... | \$0.40 |

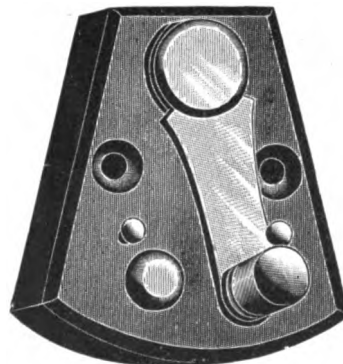
Neutral Point Switch.

Hard rubber base.



| | | |
|-------------|--|--------|
| Trade Word. | | Price. |
| Evangelic | | \$1.00 |

Keystone (Rubber Base).



| | | |
|-------------|--------------|--------|
| Trade Word. | | Price. |
| Lobe. | 1 point..... | \$0.50 |
| Lobed. | 2 "..... | .55 |
| Lobellg. | 3 "..... | .60 |

HOUSE GOODS.

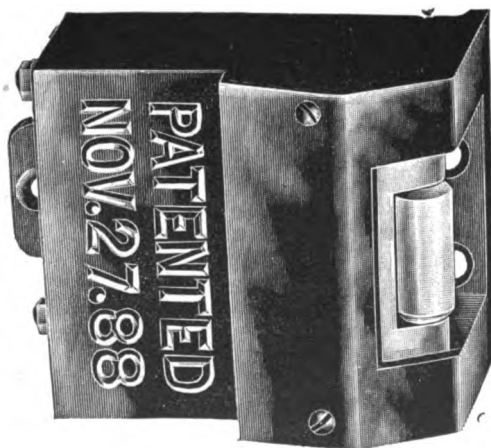
ELECTRIC DOOR OPENERS.

New Edwards Pattern.

These well known electric door openers are compact, strong, direct acting and have given satisfaction wherever used. Each one is carefully tested, under heavy pressure, before leaving factory. A push open spring and all necessary screws are furnished with each opener. They are made for "Mortise," "Rim" and "Plate" fitting.



Trade Word. Litmus. **Mortise for heavy doors.** **Price.** Mortise, 2 in. wide, $2\frac{1}{2}$ in. deep, 1 in. thick, $1\frac{1}{4}$ in. opening.....each, \$4.00



Trade Word. Littleness. **Rim for light doors, office gates, etc.** **Price.** Rim, $2\frac{1}{4}$ in. wide, $2\frac{1}{2}$ in. deep, $1\frac{1}{4}$ in. thick, $1\frac{1}{4}$ in. opening.....each, \$4.00

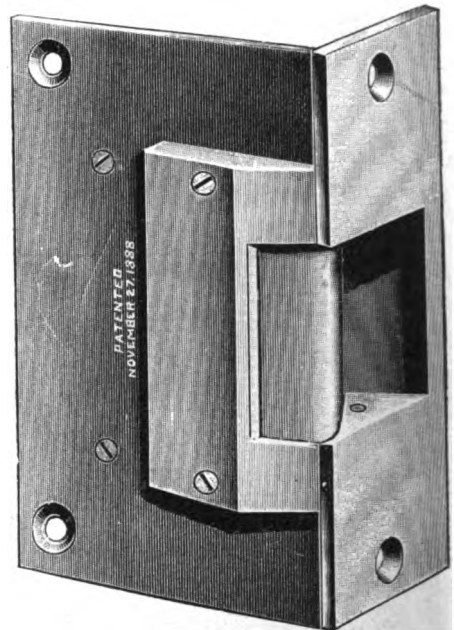


Plate for doors not thick enough to cover mortise. **Trade Word.** Livelihood. **Price.** Plate, $3\frac{1}{4}$ in. wide, $2\frac{1}{2}$ in. deep, $1\frac{1}{4}$ in. thick, $1\frac{1}{4}$ in. opening.....each, \$4.00

The Lungen Door Opener.

Is specially designed to meet the demand for a low priced, reliable attachment, is strong, compact and requires but minimum amount of battery, has "push open" spring and necessary screws are furnished with each opener.



Lungen for right and left hand doors.
For mortise fitting only.

Trade Word. Feeable. **Price.** Each.....\$2.50
Each in dozen lots.....2.00

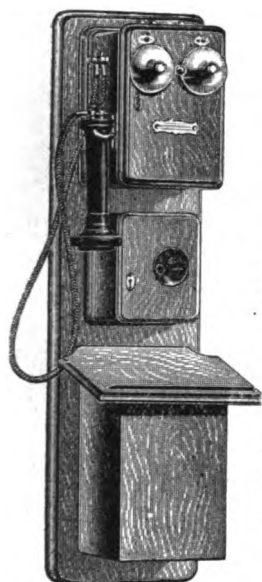
HOUSE GOODS.

TELEPHONE SUPPLIES.

NO. 1.

Long Distance Telephone.

With Hunnings Transmitter.

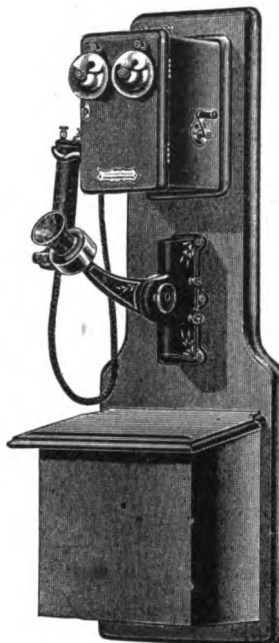


In walnut or oak; loud ringer and loud talker; good for 100 miles; suitable for short or long distance. The faintest whisper can be heard in this telephone. A conversation can be carried on at the length of cord with your back to the transmitter.

Complete without battery.

| Trade Word. | Price. |
|---------------------------------|---------|
| Extent. Single battery box..... | \$14.00 |
| Truthfully. Double " " | 14.50 |

NO. 5.

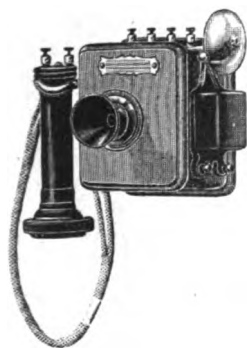
Adjustable Arm Telephone.

This telephone has long distance transmitter, double battery box, 500 ohm coil for long distance work; 15,000 ohm bell.

Complete without battery.

| Trade Word. | Price |
|----------------|---------|
| Reappoint..... | \$20.00 |

NO. 4.

Echo Telephone.

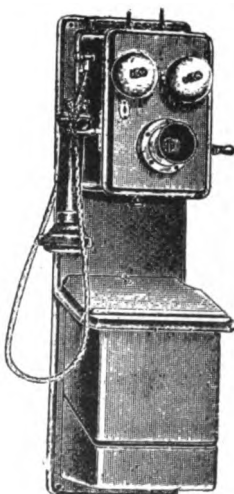
The Echo battery telephone has Hunnings transmitter, electric call bells and standard receiver. Talks as loud as any telephone.

The Echo telephone is well adapted for inter-communicating systems having any number of stations.

Complete without batteries.

| Trade Word. | Price. |
|-----------------------------------|--------|
| External.....each | \$6.00 |
| Reappointed. With back board..... | 7.00 |

NO. 3.

Special Telephone.

This telephone is adapted for residences, offices and factories; has aluminum front transmitter; mounted on 24½ inch back boards.

Complete without batteries.

| Trade Word. | Each. |
|---------------------------------------|---------|
| Exterior. With single battery box.... | \$13.00 |
| Reappointing. With double " " | 13.50 |

HOUSE GOODS.

TELEPHONE SUPPLIES.

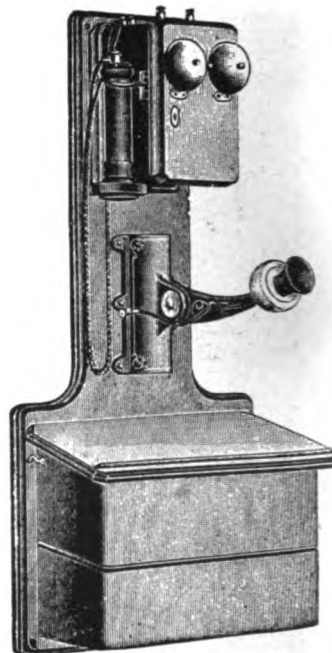
No. 7 Adjustable Bridging Arm Telephone.

Is for long distance lines where 15 to 30 telephones can be put on one line in multiple. Complete without batteries.

| Trade Word. | Price. |
|---------------------------------------|---------|
| Rear. With 1000 ohm ringer coils..... | \$20.00 |
| Reared. " 1600 " " " | 22.00 |
| Rearing. " 2500 " " " | 24.00 |



Desk set.



Improved Desk Set.

Equipped with high grade solid back transmitter and latest type long distance double pole pony receiver. Switch is positive in its action. Complete without battery.

| Trade Word. | Price. |
|--|---------------|
| Touchingly. Complete, as per cut, with battery call..... | each, \$13.00 |
| Toughening. Complete with extension bell and generator.. | " 20.00 |

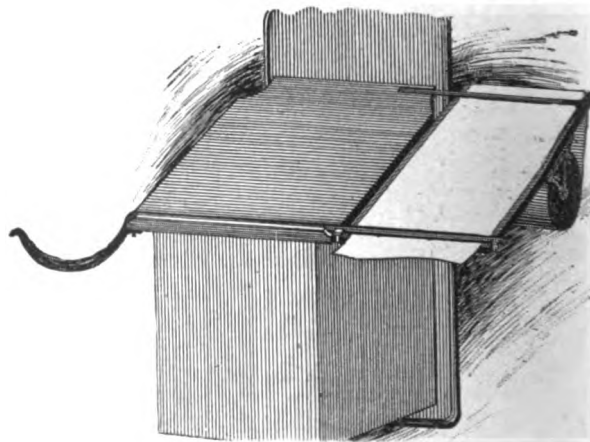
Combined Telephone Tablet and Arm Rest.

No. 2 Long Distance Telephone.



This telephone has the aluminum front transmitter, loud talking. Good for any distance.

| Trade Word. | Price. |
|---|---------|
| Extenuate. Complete, as shown, without batteries..... | \$11.35 |



| Trade Word. | Price. |
|----------------------------|--------------|
| Reascending. Complete..... | each, \$2.00 |

HOUSE GOODS. TELEPHONE SUPPLIES.

Hunnings Type Transmitters.



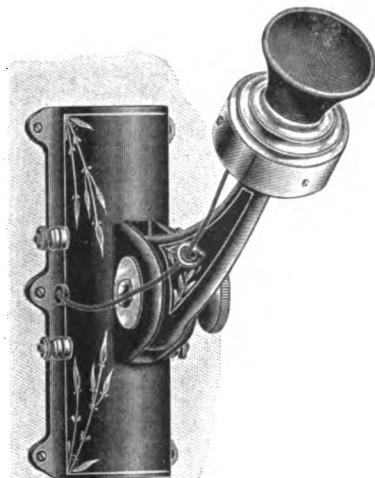
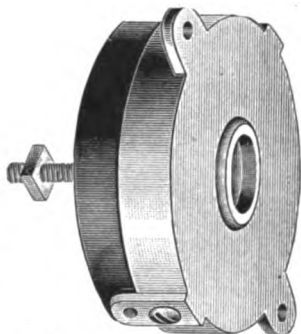
Aluminum front.

| | | | |
|-------------|-------------|-------------|-------------|
| Trade Word. | Each. | Trade Word. | Each. |
| Reason. |\$1.10 | Offer. |\$1.20 |

Hunnings Inside Transmitter.

In every way a first-class transmitter; used on the inside of transmitter box.

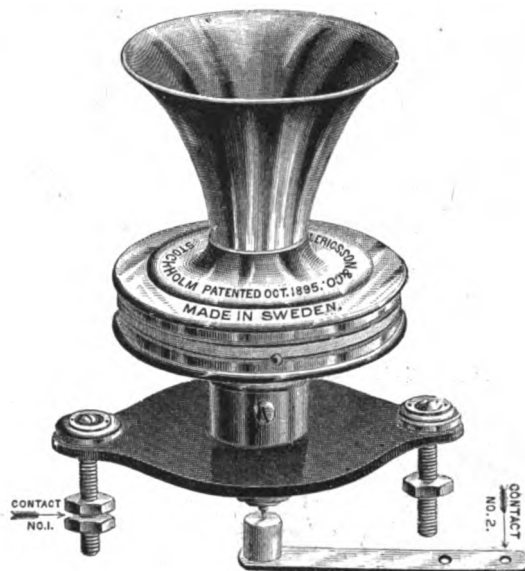
| | |
|-------------|-------------|
| Trade Word. | Each. |
| Reasonably |\$0.95 |



Long Distance Adjustable Arm Transmitter.

| | |
|-------------|--|
| Trade Word. | Each. |
| Reasoned. | Complete with 500 ohm induction coil .....\$4.00 |
| Reasoning. | Long distance arm only 1.90 |

Ericsson Swedish Coal Grain Microphone.



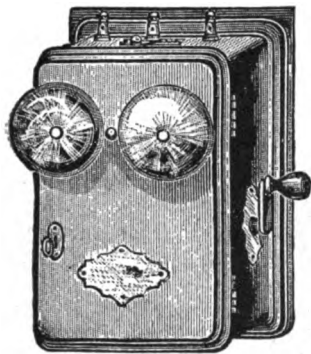
Can be attached to any make of telephone, and will operate equally as well on long or short lines. Requires absolutely no adjustment.

| | |
|-------------|-------------|
| Trade Word. | Each. |
| Truthless. |\$8.00 |

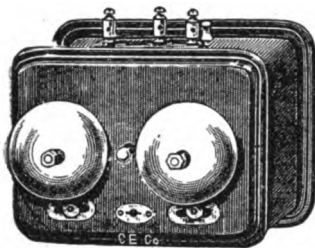
Improved Solid Back Transmitter.



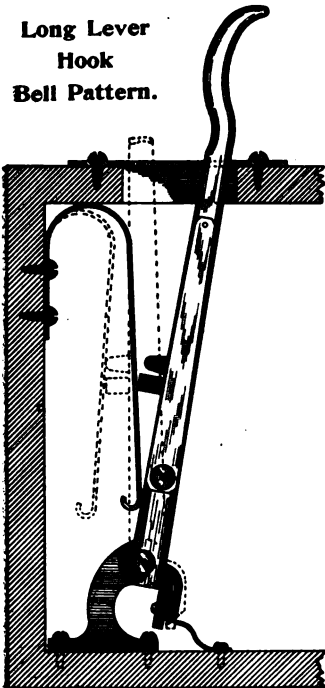
| | |
|-------------|-------------|
| Trade Word. | Each. |
| Towardness. |\$2.00 |

Magneto Bells.

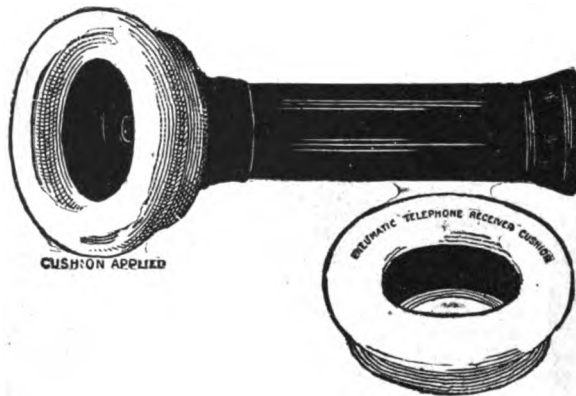
Trade Word. Price.
 Exiled. Walnut box....\$6.00
 Exiling. Oak box..... 6.00
 Above bells bridged, \$1.00 net extra.

Standard Extension Bells.

80 ohms. Price.
 Trade Word. Turfless. Walnut box..\$3.00
 Exilement. Oak box..... 3.00
 Above bells bridged, \$1.00 net extra.

Long Lever Hook Bell Pattern.

Trade Word. Price.
 Reasoner.\$0.60

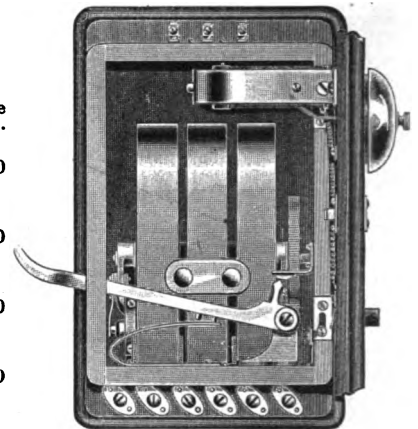
HOUSE GOODS.**TELEPHONE SUPPLIES.****Pneumatic Telephone Receiver Cushions.**

Covers the ear entirely; keeps out the noise; is soft and pleasant to the head. Indispensable to all 'phone users.

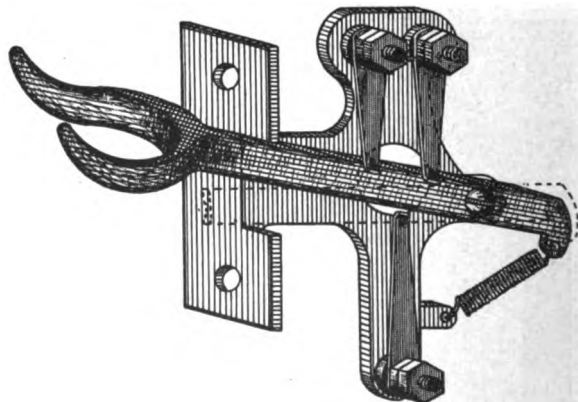
Trade Word. Price Each.
 Tournament. \$1.00

Williams-Abbott Magneto Bells.

| Trade Word. | Price Each. |
|---|-------------|
| Toughness. 10000 ohms, series exchange..... | \$ 9.00 |
| Tourist. Bridged exchange 1000 ohms, ringer coils..... | 11.00 |
| Tournay. Bridged exchange 1650 ohms, ringer coils..... | 11.50 |
| Tourniquet. Bridged exchange 2500 ohms, ringer coils..... | 13.00 |

**Williams-Abbott Extension Bell.**

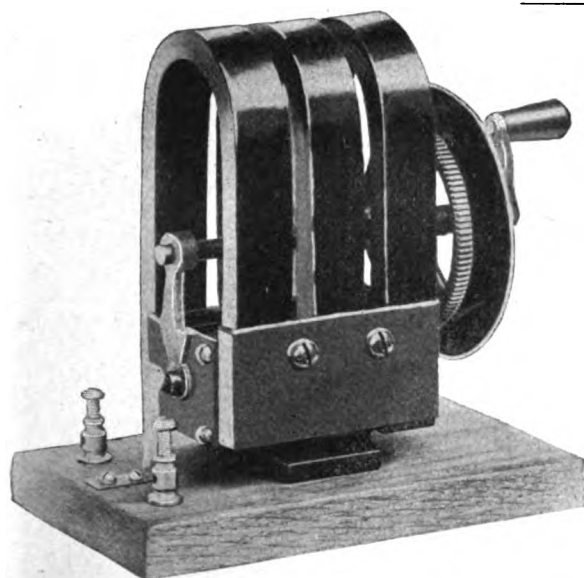
| Trade Word. | Price. |
|--------------------------------------|-------------|
| Tousling. Series extension bell..... | each \$4.00 |
| Touter. Bridged extension bell | " 6.00 |

EUREKA HOOK No. 2.

Very reliable, and easy to put on.

| Trade Word. | Price. |
|-----------------|--------|
| Reassemble..... | \$0.50 |

HOUSE GOODS.

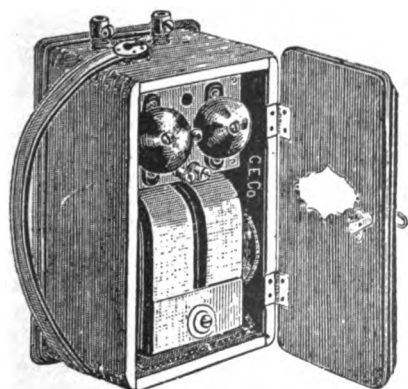
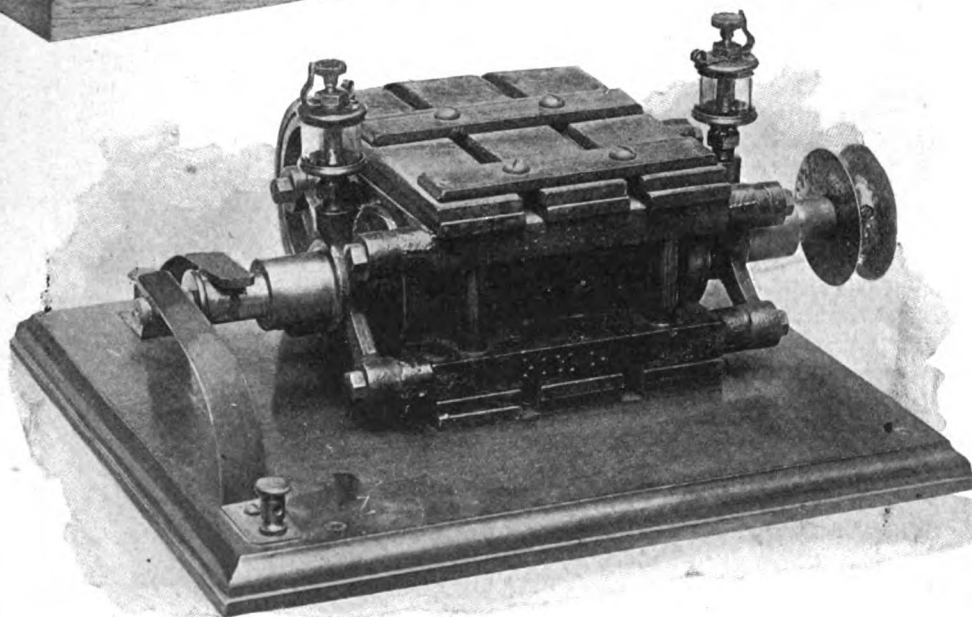


TELEPHONE SUPPLIES.

Hand and Power Generators.

These switch board generators are made specially for our trade and we have no hesitancy in recommending them to telephone exchanges wanting a high-class, reliable service.

| Trade Word. | Price. |
|-------------------------------|---------|
| Existing. Hand generator..... | \$ 8.00 |
| Exit. Power generator..... | 50.00 |

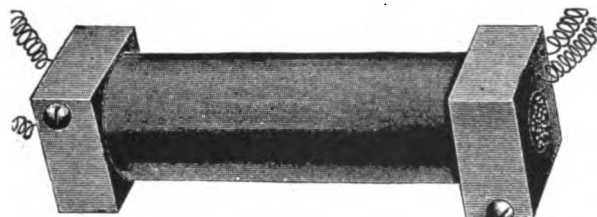


Magenta Testing Bells.

The cases for these testing bells are made of best selected, close-grained oak and ash. They have substantial leather handles. The binding posts will take from smallest size office wire to No. 4 B. & S. Size of case, $8\frac{1}{4} \times 5\frac{1}{2} \times 5$ inches; weight, about 9 lbs.

| Trade Word. | Price. |
|--|---------|
| Earn. To ring through 25,000 ohms..... | \$ 9.00 |
| Epicure. " " 35,000 " | 10.00 |
| Epidemic. " " 50,000 " | 11.50 |

HOUSE GOODS. TELEPHONE SUPPLIES. INDUCTION COILS.



4 inches long.

| Trade Word. | | Price. |
|-------------|-------------------------|--------|
| Reassign. | Silk, 500 ohm.....each, | \$0.85 |
| | In doz. lots.....“ | .75 |

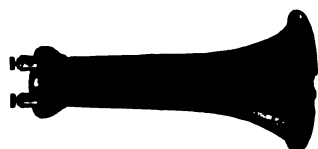


2½ inches long.

These coils are wound to 250 ohms.

| Trade Word. | | Price. |
|-------------|--------------------|--------|
| Expect. | Silk.....each, | \$0.50 |
| | In doz. lots.....“ | .45 |

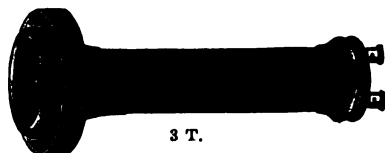
TELEPHONE RECEIVERS.



Long Distance Pony Receiver.

| Trade Word. | Price. |
|-------------|---------------------------|
| Towel. | Hard rubber, each, \$3.00 |

Standard Telephone Receiver.



3 T.

| Trade Word. | | Price. | Price in doz. lots. |
|-------------|---|--------|------------------------|
| Express. | Hard rubber compound magnets, lock nut binding posts.....each, | \$1.60 | \$1.50 |
| Expressed. | Composition compound magnets “ | 1.20 | 1.10 |
| Expressly. | Receiver cords, 2 feet.....“ | .20 | |
| Expulse. | “ “ 3 “.....“ | .24 | |

Head Bands.



| Trade Word. | Price. |
|--------------|---------------------------------|
| Reassurance. | Head band with receiver, \$4.00 |



Mouth Pieces.

| Trade Word. | Price. |
|-------------|---------------------|
| Reassure. | Male thread. \$0.15 |
| Reassured. | Female “ .15 |

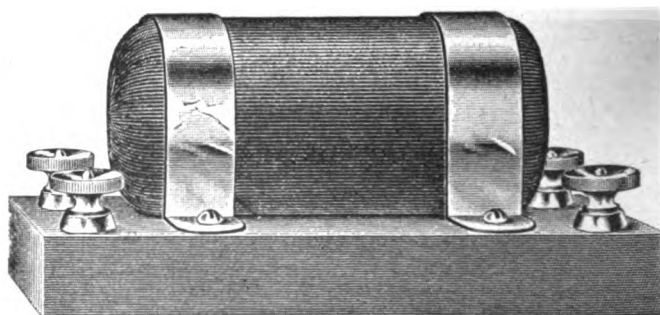
| Trade Word. | | Price. |
|-------------|---|--------|
| Treacle. | 10000 ohm magneto generators only..... | \$3.00 |
| Treading. | Ringer movements only, complete, for series work..... | 1.50 |
| Treadless. | “ “ wound to 1000 ohms for bridge work..... | 3.50 |
| Treadmill. | “ “ wound to 1600 ohms..... | 4.00 |

Watch Case Receiver.



| Trade Word. | Price. |
|--------------|----------------------------|
| Reassigning. | Single pole...each, \$0.90 |
| | In doz. lots...“ .80 |

Repeating Coil, or Transformer.



For transmitting from a single to a metallic circuit by induction.

| Trade Word. | Price. |
|--------------|----------------------------------|
| Officiating. | Repeating coil.....each, \$17.00 |

HOUSE GOODS.

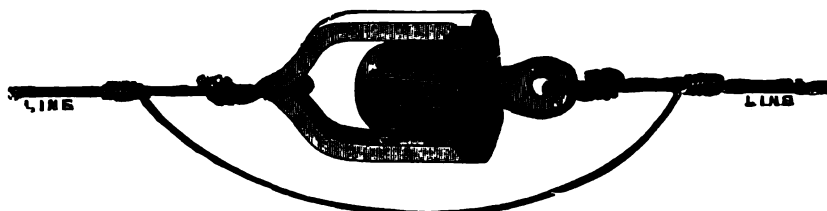
TELEPHONE SUPPLIES.



Back Boards with Battery Boxes.

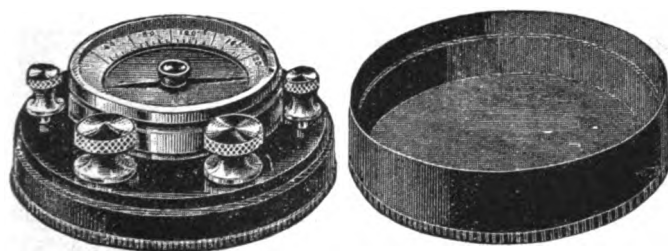
| Trade Word. | | | Price. |
|-------------|----------|-------------|----------------|
| Reassuring. | 30 inch. | Oak | single, \$1.50 |
| Rebate. | 30 " | Walnut..... | " 1.60 |
| Rebated. | 32 " | Oak | double, 1.75 |
| Rebating. | 32 " | Walnut.. | " 1.85 |

The Anti-Hum.



Humming of telegraph wire is easily remedied.

| Trade Word. | Price. |
|------------------|--------|
| Rebatement. | \$0.30 |



Full size.

Pocket Galvanometer.

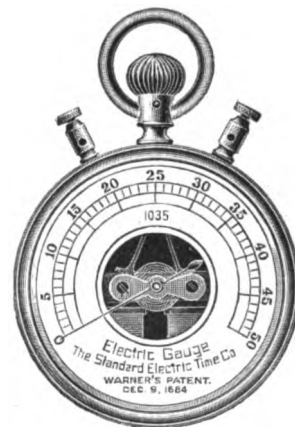
A handsomely finished and valuable little galvanometer; mounted in highly polished hard rubber case, with hard rubber cover. Cut, which is full size, shows that with cover on it is not much larger in diameter than a silver dollar. Everybody having to do with electricity should carry one.

| Trade Word. | Price. |
|--------------------------------|--------|
| Ear. Pocket galvanometer | \$6.00 |

Warner Patent Electric Gauge.

This pocket gauge is about the size of an ordinary watch and is very convenient for the use of inspectors and repair men. It is the only small practical instrument for determining quickly the relative strength of cells of battery. For this purpose its use is indispensable for telephone work.

| Trade Word. | Price. |
|-------------------------------|---------|
| Embossed. Nickel plated. | \$11.00 |



HOUSE GOODS.

MCINTYRE CONNECTORS.

Net Prices per Hundred.

| Gauge B. & S. | Twist Connectors for Electric Light Wires. | Compressed Connectors. | Hard Drawn Copper Wire. | Galvanized Iron Wire. |
|------------------|--|---------------------------|----------------------------|--------------------------|
| 6 | \$8.00 | ..... | \$11.50 | \$9.00 |
| 7 | 6.00 | ..... | 10.50 | 7.00 |
| 8 | 5.50 | ..... | 9.50 | 7.00 |
| 9 | 5.00 | ..... | 8.50 | 7.00 |
| 10 | 4.50 | ..... | 7.00 | 6.00 |
| 11 | 4.00 | ..... | 7.00 | 6.00 |
| 12 | 4.00 | \$4.00 | 7.00 | 5.00 |
| 13 | 3.50 | 3.50 | 7.00 | ..... |
| 14 | 3.50 | 3.50 | 7.00 | 5.00 |
| 15 | 3.50 | 3.50 | 6.00 | ..... |
| 16 | 2.50 | 2.50 | 6.00 | ..... |
| 17 | 2.50 | 2.50 | ..... | ..... |
| 18 | 2.50 | 2.50 | ..... | ..... |
| 19 | 1.50 | 1.50 | ..... | ..... |
| 20 | 1.50 | 1.50 | ..... | ..... |

In ordering these goods, please describe by number

For twisting clamps for McIntyre connectors, see page 204.



Twisting Clamps.

Per set of two pairs (Fig. 23).

Trade Word.

Coercion. No. 23. Wire Nos. 8 to 16.....\$3.50

Net Price.

AMERICAN SOLID CONNECTORS.



No. 767.

Trade Word. List No.

| | | | |
|-------------|-----|---|---------|
| Refit. | 767 | American solid joints No. 6 B. & S. gauge, per 100..... | \$10.00 |
| Reflect. | | " " " " 8 " " " " | 10.00 |
| Reflecting. | | " " " " 10 " " " " | 8.00 |
| Trouncing. | | " " " " 12 " " " " | 8.00 |
| Reflector. | | " " " " 14 " " " " | 8.00 |
| Reflex. | | " " " " 16 " " " " | 7.50 |

For twisting clamps for American solid joints, see page 204.

HOUSE GOODS.

TELEPHONE SUPPLIES.

Boston Cable Clip.

This clip is the simplest, strongest and most completely adjustable device made for the support of aerial cables. It consists of two pieces of steel wire and a strap of sheet metal; there are no rivets, pins, or buttons, and it may be taken off and used again as often as required, without injuring its efficiency. It can be quickly and easily adjusted to any cable that the strap will go round, and can be placed over a splice as well as on the regular cable. It is adjusted wholly by hand and is fitted in this way more firmly than other clips can be fitted with pliers; the metal strap is pulled tight round the cable before it is passed through the hanger (Fig. 2). Upon turning over the hanger the metal strap is bent down and locked in place, the lever action taking up all slack and binding the strap tight.

The time saved in adjustment and the freedom from delays and trouble caused by breakage, make this clip the cheapest on the market and a source of actual economy.

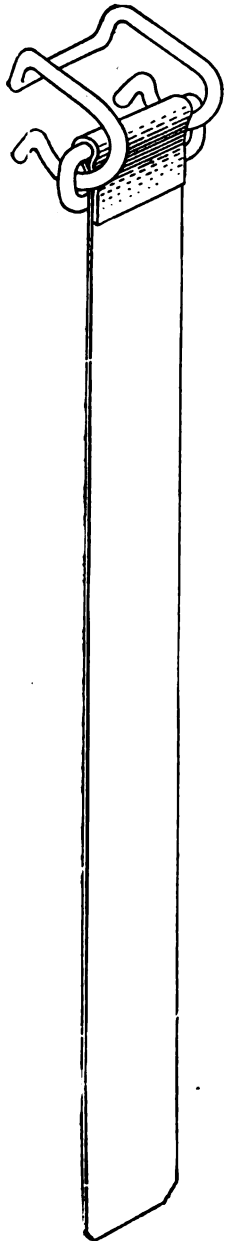


Fig. 1.

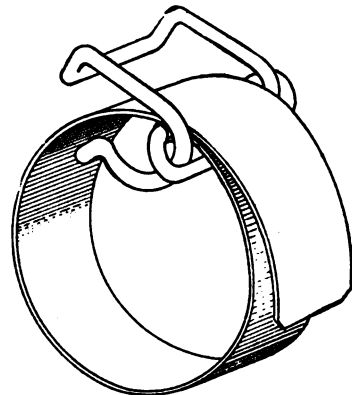


Fig. 2.

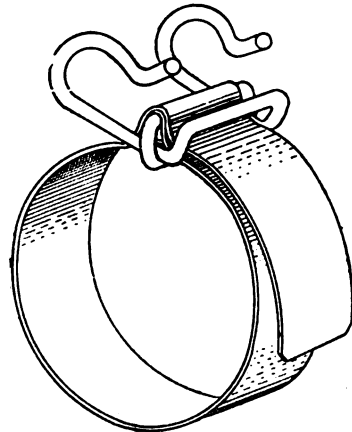


Fig. 3.

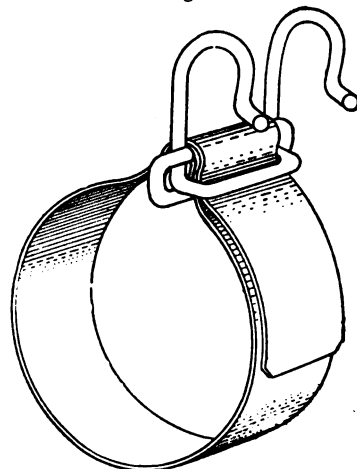


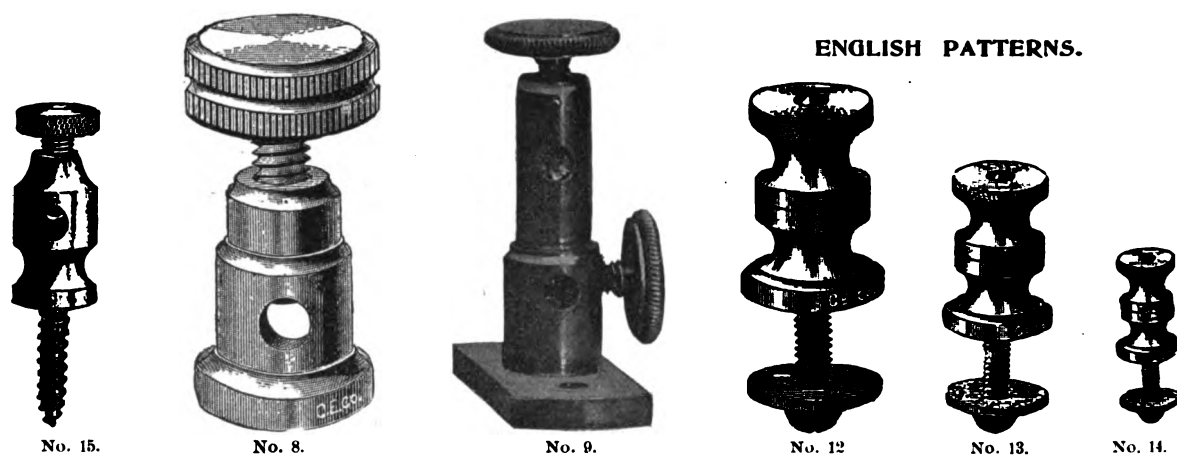
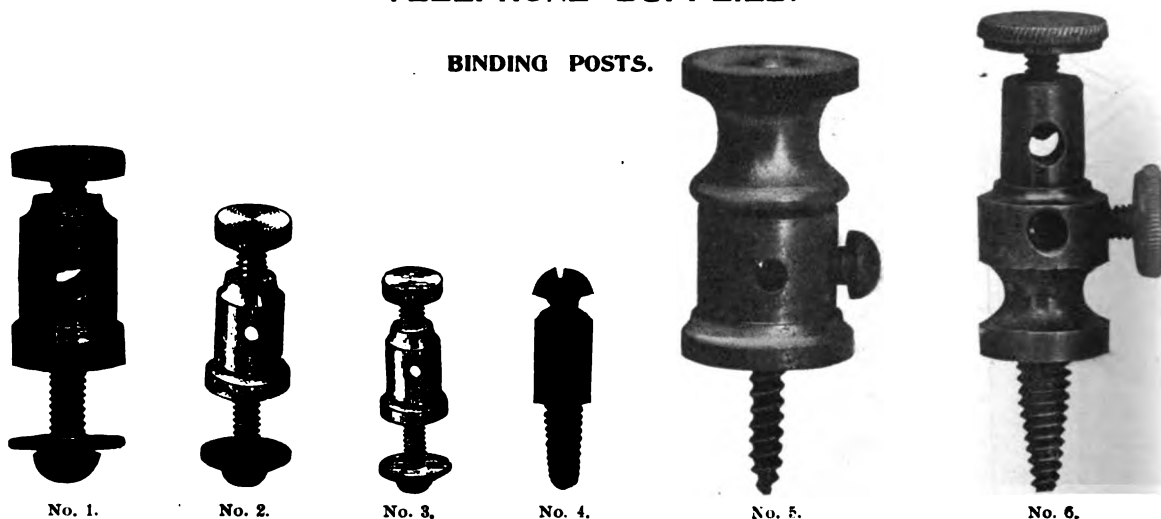
Fig. 4.

Trade Word.

| Clinch. | | Price. |
|--|-----------|---------|
| Less than 500 lots, 6½ inch strap, ½ inch opening of hook..... | per 1000, | \$65.00 |
| Lots of 500 and over..... | " | 60.00 |
| " 1000 " | " | 55.00 |

HOUSE GOODS. TELEPHONE SUPPLIES.

BINDING POSTS.



ENGLISH PATTERNS.

Price List of Binding Posts.

| Trade Word. | | | | Price. |
|-------------|---------|---------------|-------------------|--------------|
| Indelicate. | No. 1. | Binding post, | screw and washer | each, \$.10 |
| Indent. | No. 2. | " " | " " | " .10 |
| Indelope. | No. 3. | " " | nickel plated. | " .06 |
| | | | " " in 100 lots | " .04 |
| Indian. | No. 4. | " " | wood screw. | " .06 |
| Indentive. | No. 5. | " " | " " | " .06 |
| Indentured. | No. 6. | " " | " " | " .06 |
| Indexed. | No. 8. | " " | dynamo terminal | " .07 |
| Indeed. | No. 9. | " " | flat base. | " .06 |
| Trundling. | No. 12. | " " | screw and washer. | " .06 |
| Trunkhose. | No. 13. | " " | " " | " .06 |
| Indenize | No. 14. | " " | " " | " .06 |
| Indenting. | No. 15. | " " | wood screw | " .06 |



Finished Double Connector.

Trade Word. Price.
Indorsement. Finished, \$0.15



Single Connectors.

Trade Word. Price.
Indorse. Finished, each, \$0.10

HOUSE GOODS.

TELEPHONE SUPPLIES.

Plain Terminal and Distributing Box.

Plain terminal box—without lightning arrester or fuses. Workmanship fully as good as in the fused box.

| Trade Word. | Price. |
|---------------------------------|---------------|
| Tubrose. Terminal box only..... | each, \$15.00 |
| Tubman. Terminals..... | “ .48 |

DIRECTIONS.

Strip lead from end of cable and insert ends of wire into nozzle “N” allowing lead sheath to extend through it, and connect lead sheath to nozzle with wiped plumbers’ joint; connect ends of cable wires to inside terminals by pushing into slots. The wires will stay in place until permanently fixed by solder. Use a non-corrosive soldering flux. A compound of two parts (by bulk) of chloride of zinc, twelve parts of alcohol, and ten parts of glycerine is a very good one. If conductors insulated with paper or cotton, pour in and pour out paraffine heated to about 300° until all moisture is expelled. While box and wires are still hot put on rubber gasket and screw cover to box.

With rubber covered wires the boiling out is unnecessary. Same directions should be observed for boiling out paper or cotton insulated wires for either fused or plain terminal box.

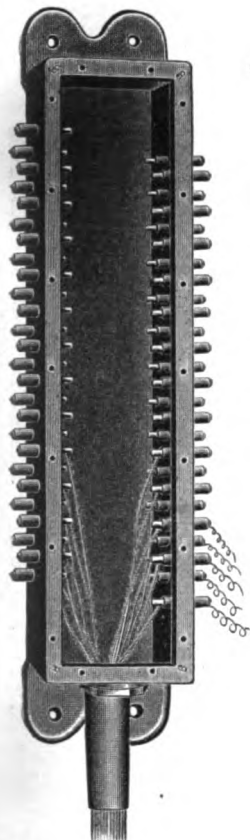
Fused Terminal and Distributing Box.

To inclose and protect the ends of electric cables, and to furnish ready means for easily testing and transposing conductors.

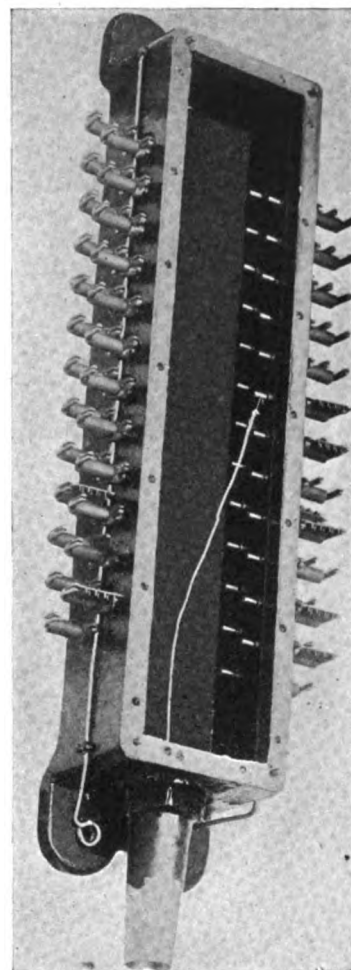
Is an absolute defence against moisture and also affords protection from lightning and other strong currents. Testing is much facilitated by the use of this device. The removal of a fuse block leaves two open ends into which testing instruments may be inserted readily.

Fuse holder is so constructed that while the distance between contacts is but one inch the winding path traveled by fuse is $3\frac{1}{4}$ inches. The most delicate fuse will not be injured by handling (after it is affixed to the block).

| Trade Word. | Price. |
|-------------------------------|---------------|
| Ready. Terminal box only..... | each, \$15.00 |
| Reader. Fused terminals..... | “ .90 |



Plain terminal box.



Fused terminal box.

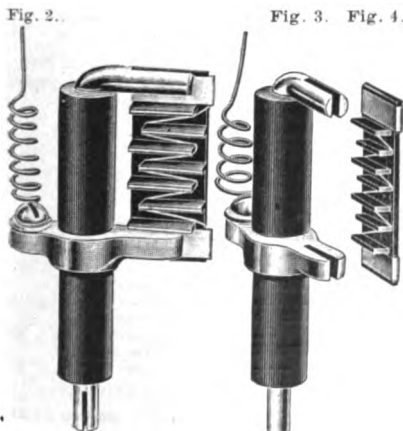
**Fuse Holder and Fuse.**

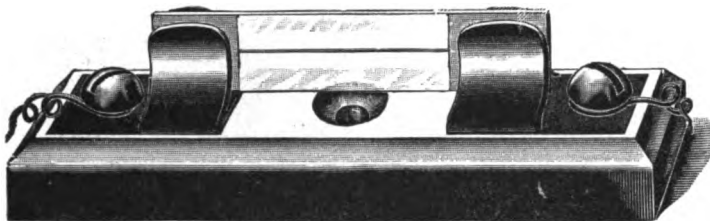
Fig. 2. Shows fuse block in position.

Fig. 3. Shows terminal separated from iron case and without fuse.

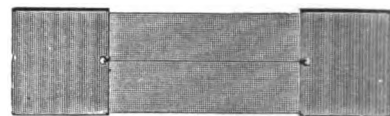
Fig. 4. Shows fuse block separated from terminal.

HOUSE GOODS.

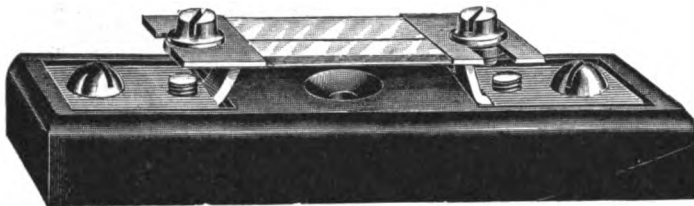
MAXSTADT TELEPHONE FUSE BLOCK AND FUSES.



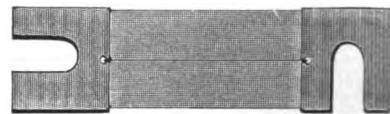
Western Union style block.



Western Union style fuse.



Postal style block.



Postal style use.

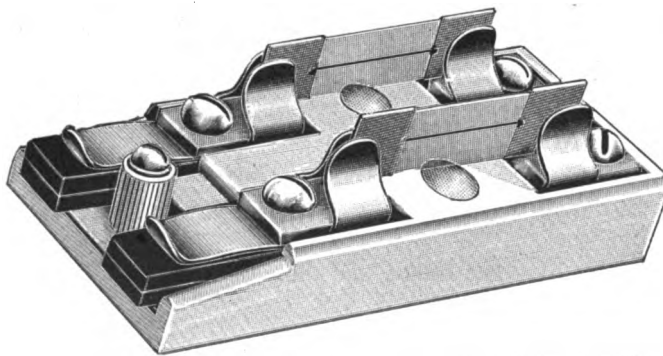
Trade Word.

| | | | | |
|-------------|--|-------|--------------|---------|
| Torrent. | Fuse block only, W. U. style. | ..... | in 100 lots, | \$14.00 |
| | | | in 500 " | 12.00 |
| Tortoise. | " " " Postal style | ..... | in 100 " | 14.00 |
| | | | in 500 " | 12.00 |
| Tortousity. | $\frac{1}{4}$ or $\frac{1}{2}$ ampere fuses, foil tipped, W. U style | ..... | in 100 " | 1.00 |
| | | | in 500 " | .80 |
| Tortuous. | $\frac{1}{4}$ or $\frac{1}{2}$ " " copper tipped, W. U. style. | ..... | in 100 " | 1.50 |
| | | | in 500 " | 1.40 |
| Torturer. | $\frac{1}{4}$ or $\frac{1}{2}$ " " foil " Postal style. | ..... | in 100 " | 1.00 |
| | | | in 500 " | .80 |
| Toryism. | $\frac{1}{4}$ or $\frac{1}{2}$ " " copper " " " | ..... | in 100 " | 1.50 |
| | | | in 500 " | 1.40 |

The above prices cover all fuses up to and including 2 inches in length.

Special fuses of any length and capacity from 1-10 ampere to 10 amperes furnished on application.

COMBINED CARBON AND FUSE LIGHTNING ARRESTER.



The effect of a lightning discharge across the carbon blocks is that of producing a small amount of carbon dust. This can easily be removed by pulling out the carbon blocks and blowing out the dust, then replacing them, and the arrester is in working order again.

The fuse end of the arrester is connected to the wires running to the instrument to be protected, and the carbon arrester end is connected directly to the line wires.

Trade Word.

| | | | |
|----------|---|-------|--------|
| Totally. | Western Union or Postal style, each. | ..... | \$0.60 |
| Totter. | Western Union or Postal style, in lots of 50 or over. | ..... | .50 |

For prices on fuses see above.

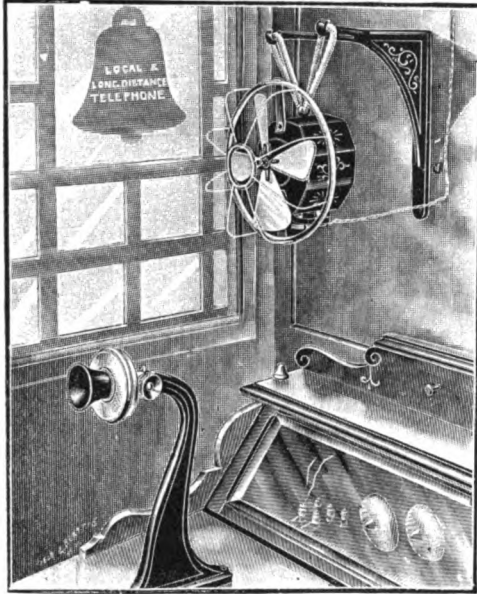
SWITCHBOARD CORD.

This is the best conducting cord made for switchboard use; it will stand a great amount of hard service.

| Trade Word. | | Price. |
|-------------|--|------------------|
| Trunccheon. | Tinsel conductor, braided around a flax cord center, with cotton and linen outside insulation. Single conductor. | |
| | We carry in stock red and white mixed, solid red or solid green. | per yard, \$0.16 |
| Officiate. | Two conductors laid flat, insulation, cotton inside and worsted outside; one conductor braided red, the other blue; outside color green. | per yard, .20 |
| Travelling. | Two conductors laid flat, insulation, cotton inside and silk outside, both conductors green; outside color red or green. | per yard, .25 |
| Traveler. | Carbon transmitter diaphragm | per lb. .14 |
| Traverse. | Receiver diaphragm | per lb. .05 |
| Treachery. | Granular carbon globules | per lb. \$0.00 |

HOUSE GOODS.

TELEPHONE BOOTH FAN MOTOR OUTFIT.



Style E.

For operation on 110 to 120 volt direct current circuit.

Consists of an Edison motor having a 7 inch fan and guard as shown. Motor is suspended by a heavy rubber ring which takes up all vibration and runs quietly, is provided with a series current tap for insertion in socket and motor runs in *series* with a 16 C. P. lamp.

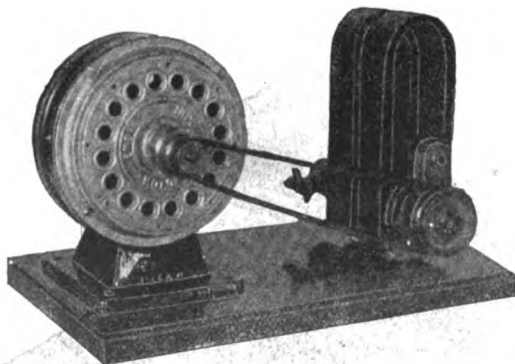
Trade Word.

Listener. Style E, complete, with motor, bracket, rubber suspension ring, current tap and cord. \$20.00

Price.

POWER MAGNETO GENERATOR.

For telephone exchanges; operative on alternating current circuits.



Consisting of induction motor belted to telephone generator and mounted on substantial base.

Large size for operation on circuits of 7200 alternations per minute at 50 or 100 volts.

Small size for operation on circuits of 16000 alternations per minute at 50 or 100 volts.

Trade Word.

| | | |
|------------|----------------------|---------|
| Lithesome. | Large size. | \$60.00 |
| Lithiate. | Small size | 48.00 |

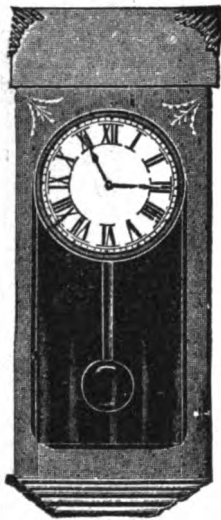
Price.

HOUSE GOODS.

THE CHICAGO SELF-WINDING CLOCKS.

STYLE C.

Eighty beats to minute: 12 in. dial. Old oak, cherry, walnut or mahogany.



Length 40 inches; width 16 inches.

STYLE B.

Sixty beats to minute: 10 in. dial. English or antique oak, walnut, mahogany or cherry



Length 64 inches; width 16 inches.

Wound by electricity. A perfect clock for railroads, stores, offices, residences, schools, factories, churches, and every place where an absolutely perfect and reliable time-piece is wanted.

Trade Word.

Price.

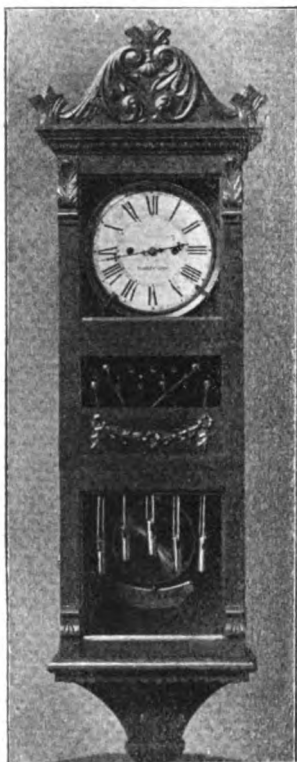
| | | |
|-------------|------------------------|---------|
| Treasure. | Style C, complete..... | \$40.00 |
| Treasuring. | " B, " | 60.00 |

In ordering specify finish of case desired.

HOUSE GOODS.

ELECTRIC SIGNAL AND BURGLAR ALARM CLOCKS.

Description of Styles.



Style A.

Style A is a thirty day movement, with double spring and pendulum regulator. The switch board is made of hard rubber, with five plugs and weights, and five contact fingers. This clock is designed for family use. It is a first-class time keeper and needs to be wound but once a month. The cases are made in oak, cherry and walnut.

Style D has same movement as style A, but is intended for hotels, schools and other public buildings. May be fitted with any desired number of plugs and contact fingers.

Style B is an eight day lever movement, and a good time keeper. Plain case in oak, cherry or walnut. Metal switch board with five plugs and weights, and five contact fingers. This clock is also designed for family use.

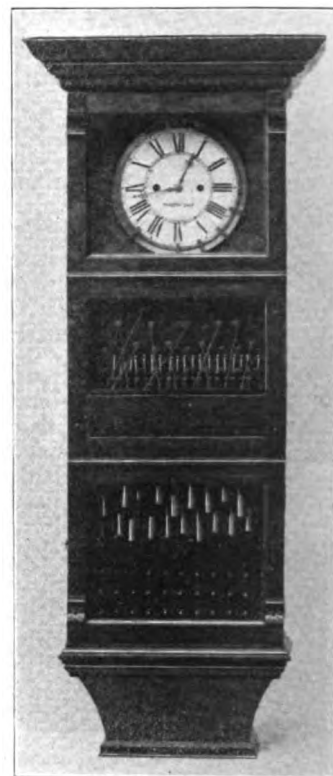
The family clocks A and B have a system of door and call bells; also burglar alarm operated by the switch board in clock. By the switching

device a bell may be rung in any room in the house or all or any number of bells may be rung simultaneously. Call bells are operated in the same manner and may be set to ring at any desired hour.

The burglar alarm connected with these clocks seals every opening connected therewith. The alarm may be placed in the sleeping room, or elsewhere in same building, or may be in another building entirely and several squares removed from point of attack, or both as desired.

The hotel clock is calculated and designed to furnish hotels with a superior class of bell service. The guest chambers are by it placed in communication with the clerk at the office. Calls may be set on same for twelve hours in advance if so desired. The clock may be depended upon to call guests at any hour set for, whether the clerk is awake or sleeping. Train announcements may be made thereby in office or elsewhere. In fact the annoyance of having guests delayed by the oversight of employees is reduced to the minimum. In case of fire all bells in the building connected with clock may be rung at the same time by throwing a lever upon the clock. The hotel clock can be connected with any return call annunciator now in use. Special prices quoted on application.

For annunciators to be used in connection with any of the above clocks see pages 388 and 391 inclusive.



Style D.

ADDENDA.

THE SECHRIST AUTOMATIC SWITCH.



A great convenience for controlling incandescent electric lights in private residences.

By using any other switch you cannot tell whether the light is on or off when you wish to operate it from more than one point.

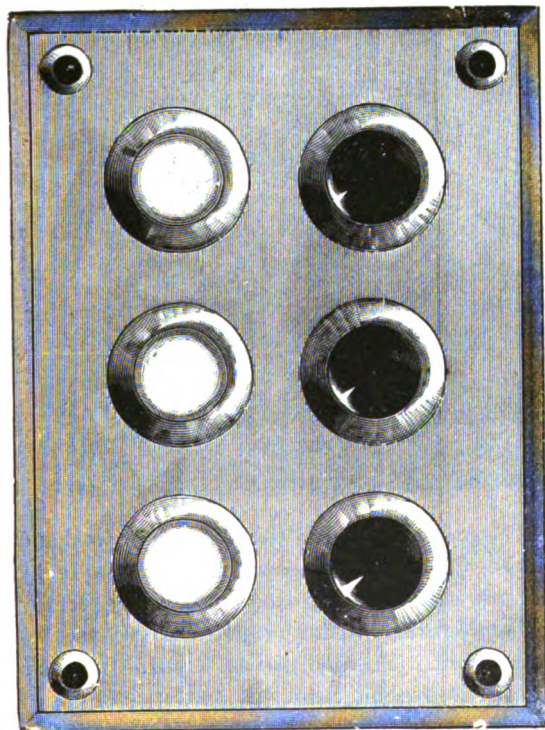
By means of this new invention, a person may have absolute control of any or all the lights in the house from any part of the house.

The wires from the automatic switch may be connected to a burglar alarm system with excellent results. The lights in a building may be operated at any desired minute of the day by placing an ordinary clock in circuit.

We recommend that this automatic switch be operated by from four to six No. 2 Samson batteries, and not by the incandescent circuit, which it is designed to control.

Six button key controlling three automatic switches.

A diagram for wiring furnished with each switch.



The white button turns on the light, while the black button opposite turns off the same light.

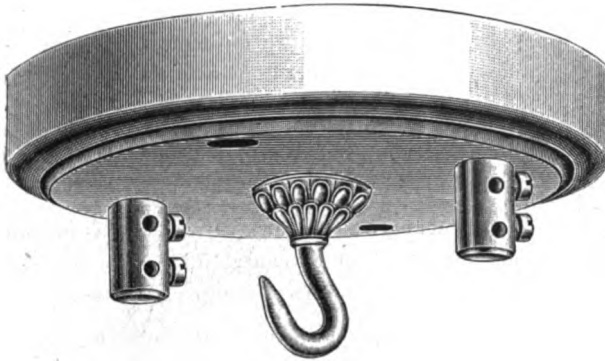
Sechrist Automatic Switch.

| Trade Word. | Price. |
|----------------------------|--------------|
| Neckcloth. 5 amperes | each, \$2.50 |

Automatic Key.

| Trade Wo | Price. |
|--------------------------------------|--------------|
| Lovelily. 2 Button key, 1 auto. | each, \$0.50 |
| Loveliness. 4 " " 2 " | " .80 |
| Lovelorn. 6 " " 3 " | " 1.10 |
| Lovely. 8 " " 4 " | " 1.40 |
| Lover. 10 " " 5 " | " 1.80 |
| Lovesome. 12 " " 6 " | " 2.00 |

ADDENDA.

ALL PORCELAIN HANGER
BOARD.

For constant potential arc lamps; without cut-out.
Can be used for series arc lamp where no
cut-out is desired.

Trade Word. Price.
Treatise. Each.....\$1.25

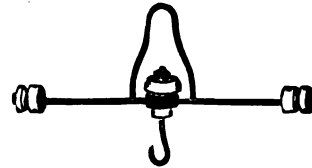
JUBILEE RAIN SHIELD AND
REFLECTOR.

For street illumination.



Furnished complete with brass nipple
for attaching any standard
keyless socket.

Trade Word. Price.
Treble. Complete without socket....each, \$0.25

CENTRAL ARC LAMP
HANGER.

With cross arm.

Constructed wholly of wrought iron with porce-
lain insulation. Very strong.

Trade Word. Price.
Treatment. Each.....\$1.00

WOODFORD DIMINISHER.



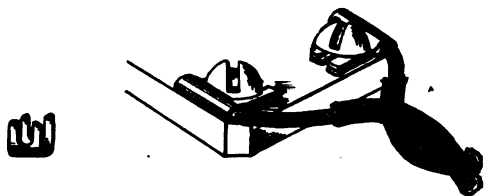
A portable light for use in sick rooms and
hospitals. Has resistance in the base whereby
the lamp is burned at any candle power desired, by
raising or lowering, with a proportionate consump-
tion of current. The addition of a shade makes a
very desirable reading lamp.

Trade Word. Price.
Trefoil. Each.....\$3.00

ADDENDA.

ELECTRIC CORD TIP.

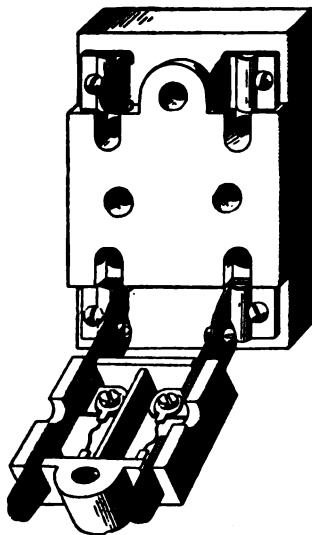
For use in lamp sockets and cut-outs.



This new article is made of sheet metal bent in shape of the letter U and forked on each end, so that it admits of both ends being slipped under screw head. It is designed to be clamped on electric goods, wires and fuse wires. The tip, when fastened on a cord which is composed of a number of fine wires, confines them all so that there is no chance for them to spread and short circuit. Packed in boxes containing 250. We do not break boxes.

Trade Word.

| | | |
|----------|---------------------|--------|
| Trellis. | Per box | Price. |
| | | \$1 50 |
| " " | in dozen lots | 1.20 |



SERVICE SWITCH AND CUT-OUT.

This cut-out is designed to be placed on the ceiling, or wall, where the wires enter, to take the place of the ordinary main line cut-out, as well as the double pole switch required by the underwriters.

As the wires enter the building, they are run directly to the cut-out, and from there directly to the lamps. The cut-out taking the place of both main and switch and obviates the necessity of running the wires down to the switch, and thereby saves a considerable expense both in wire and time.

This cut-out can be operated by a cord passed through the hole in the cover, the cord passing down to within reach from the floor. Another great point in favor of this cut-out is, that when open, the current is entirely cut off from the fuse terminals, thus making accidents impossible when re-fusing.

Trade Word.

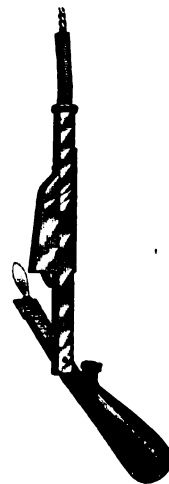
| | | |
|------------|------------|--------|
| Trembling. | Each | Price. |
| | | \$1.00 |

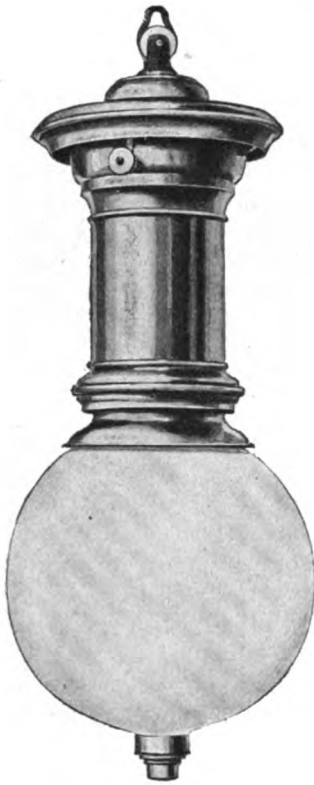
GLOBE ELECTRIC CIGAR LIGHTER.

Made for use on incandescent lighting circuits as well as from battery. The wick is of asbestos and never burns out. The spark coil and battery furnished are strictly high grade. In ordering state whether for battery or incandescent light current, and if the latter, whether alternating or direct and voltage.

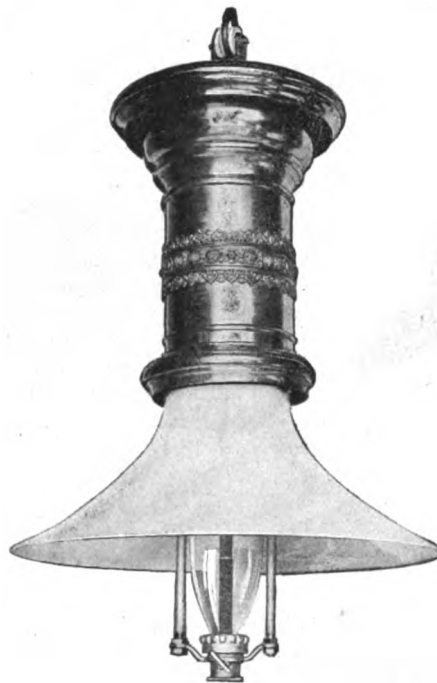
Trade Word.

| | | |
|-------------|---------------------------|---------|
| Tremendous. | Each | Price. |
| | | \$15.00 |
| | Each, in dozen lots | 12.00 |

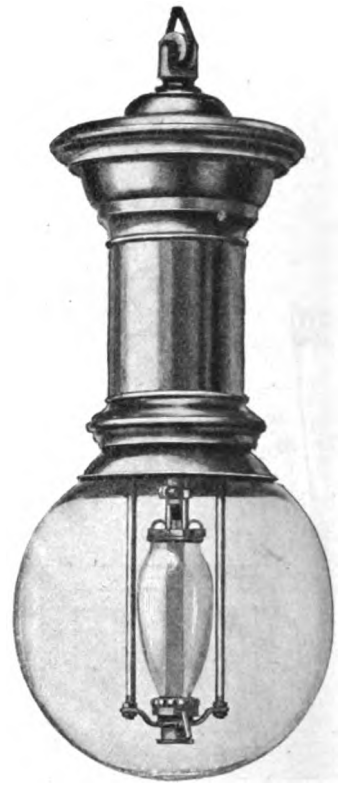


ADDENDA.**"ZECO" ENCLOSED ARC LAMPS.**

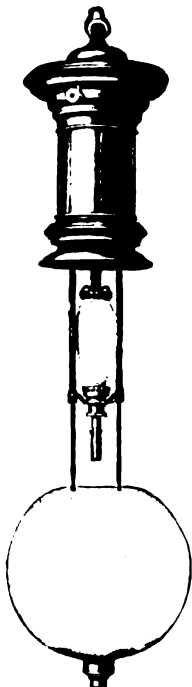
Type A.



Type C.



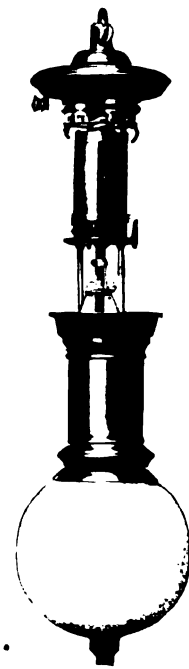
Type B.



Globe lowered for trimming.



Type D.



Case and globe lowered for adjustment.

ADDENDA.

THE "ZECO" ENCLOSED ARC LAMP.

The housings of these are identical, the only difference being in the means of holding the globe. They are thoroughly ventilated, although all openings are concealed, which renders the lamp practically impervious to dust and moisture, and equally suitable for in or out door use. The telescoping rods which hold the globe while lowered are so cushioned as to prevent the possibility of breakage during the trimming. The carbons used are $\frac{1}{4} \times 12$, and the stub of the upper is transferred to the lower so that but one carbon is used at a trimming. The life of the carbon is 150 hours although experience teaches that better results are secured if lamp is trimmed and globe cleaned somewhat more often. Length over all 27 inches. No carbon rod is used, a specially designed clutch grips the carbon and is adapted for any size.

220 volt lamp burns singly and passes $2\frac{1}{2}$ amperes with an arc voltage of 170 and life about 175 hours.

For Alternating Circuits.

The troublesome objections which have heretofore operated against the use of the arc lamp for alternating currents have been entirely overcome in The Zeco. It is noiseless, free from over-heating, and perfectly steady in operation. An induction coil is placed in the hood with adjustments allowing its use on currents of either 7,200 or 16,000 alternations. Burns directly from a secondary current of from 100 to 125 volts and is high in efficiency. It has a life of 80 hours, passes $4\frac{1}{2}$ amperes and consumes about 75 volts at the arc.

Best results are obtained by the use of one solid and one cored carbon. The light is clear, white and steady and not noticeably less brilliant than that of the direct current.

The globe of Type A is released by a slight upward pressure of the button at the bottom of the globe holder, which operates the gravity lock and allows the globe to drop to the length of the supporting rods. That of Type B is controlled by an equally sure, positive gravity lock but is released by the turn of a knob near the top of the fixture. Type D is a very handsome lamp designed for use in stores, corridors, theaters, halls, and wherever highly artistic finish is desired. Length over all 30 inches.

| Trade Word. | Type. | Voltage. | | Iron Casing. | Trade Word. | Brass Casing. |
|-------------|-------|----------|---------------------------|--------------|-------------|---------------|
| Triad. | A | 110 | Direct current..... | \$23.00 | Tremulous. | \$26.00 |
| Triangular. | A | 220 | " " | 25.00 | Trenchant. | 28.00 |
| Tribe. | A | 100 | Alternating current..... | 28.00 | Trenched. | 31.00 |
| Tributary. | B | 110 | Direct current..... | 23.00 | Trepanned. | 26.00 |
| Tribute. | B | 220 | " " | 25.00 | Trepanning. | 28.00 |
| Tricennial. | B | 100 | Alternating current..... | 28.00 | Trepidated. | 31.00 |
| Trichord. | C | 110 | Direct current..... | 23.00 | Trespass. | 26.00 |
| Trickery. | C | 220 | " " | 25.00 | Tresses. | 28.00 |
| Trickish. | C | 100 | Alternating current... .. | 28.00 | Triable. | 31.00 |
| Trickster. | D | 110 | Direct current..... | | | 28.00 |
| Tricolor. | D | 220 | " " | | | 30.00 |
| Trident. | D | 100 | Alternating current..... | | | 33.00 |

Extension rod, as shown in Type D, with canopy, \$2.00 per foot.

Type letters refer to form of casing only. Lamps for either current may be had in any form of casing and finish.

Brass casings finished in either bright brass, antique brass or steel black.

Types A, B and C, with casing of iron, finished dull or bright black.

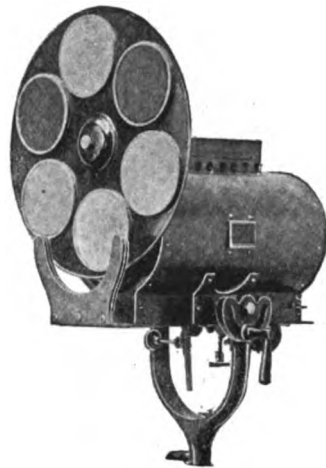
Aluminum casing, in bright or satin finish, at an advance of \$2.00 upon listed prices. This finish is novel and very handsome.

ADDENDA.
THE EMPIRE ANGLE FOCUSING ARC LAMP.



Lense Outfit.

FOR
 STAGE LIGHTING,
 KINETOSCOPE,
 STEREOPTICON.



Color Disc.



Reflector Outfit.

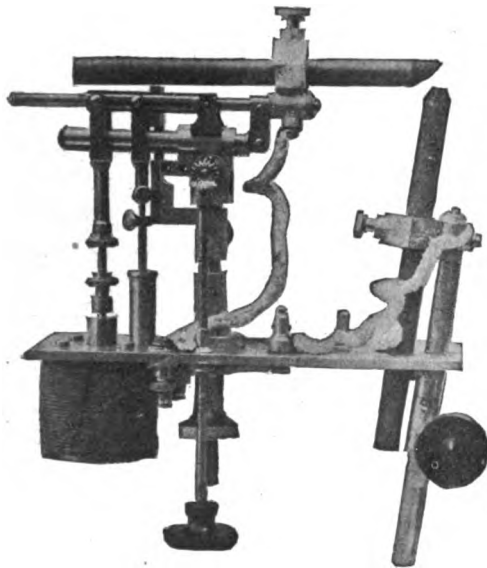


Olivette Outfit.

SEARCH LIGHTS
 AND
 PHOTO-ENGRAVING.

ADDENDA.

THE EMPIRE ANGLE FOCUSSED ARC LAMP.



Search light lamp.

The angle type of arc lamp, for projections, is rapidly replacing the old form wherein a vertical arrangement of the carbons is employed. It is beyond dispute that fifty per cent. more light is obtained, and the cause is obvious. The direct rays of the positive (or light-giving carbon), are projected naturally at the object to be illuminated, so that a reflector is only required to concentrate the scattered rays, and heighten the general effect. Our lamp has novel features which are its own. It automatically strikes and regulates the arc, and will burn without hand adjustment for thirty minutes. Hissing is absolutely prevented by this perfect control of the arc, and the lamp in consequence burns with a steadiness and intensity which is striking.

This great advantage removes the Empire entirely from comparison with any other lamp yet produced. In it are combined the desirable features of the hand feed and the automatic, and it does not share with the latter, the defects which have thus far condemned all of its class.

The Empire lamp requires but one-half the current of any other, to do the same work. It may be burned on both alternating and direct currents and the change from one to the other is quickly accomplished by the throw of a switch. The peculiar adjustment of the rheostat allows each to be used as a dimmer, and the power of the lamp may be perfectly controlled from 10,000 c. p. to that of a gas light. A special resistance wire is used and undue heating is impossible. Fine finish and material, simplicity of operation and design, are strong features, as well as the ease with which it may be taken down and packed for transportation.

| Trade Word. | Price. |
|--------------------------------------|----------|
| Trifler. Lense outfit | \$125.00 |
| Trifoliate. Color disc | 12.00 |
| Trigamous. Olivette outfit | 100.00 |
| Trigamy. Reflector outfit | 125.00 |
| Triglyph. Photo-engraving lamp | 90.00 |
| Trigonal. Search light lamp | 60.00 |



Photo-engraving and printing outfit.

BOOKS.

| Author. | TITLE. | Price. |
|---------------------------------------|--|--------|
| Abbot, A. V. | The Electrical Transmission of Energy..... | \$4.50 |
| Abernethy, J. P. | The Modern Service of Commercial and Railway Telegraphy, in Theory and Practice, Including the Railway Station and Express Service.... | 2.00 |
| Allsop, F. C. | Induction Coils and Coil-Making..... | 1.25 |
| Allsop, F. C. | Telephones, Their Construction and Fittings..... | 2.00 |
| Badt, Lieut. F. B. | New Dynamo Tender's Handbook..... | 1.00 |
| Badt, F. B. | Bell Hanger's Handbook..... | 1.00 |
| Badt, F. B. | Incandescent Wiring Handbook..... | 1.00 |
| Badt, F. B. | Electric Transmission Handbook..... | 1.00 |
| Bell, Dr. Louis | Electrical Power Transmission..... | 2.50 |
| Bottone, S. R. | The Dynamo, How Made and How Used..... | 1.00 |
| Bottone, S. R. | Electric Bells and All About Them..... | .50 |
| Buckley, W. J. | Electric Lighting Plants, Their Cost and Operation..... | 2.00 |
| Carhart, Prof. H. S. | Primary Batteries..... | 1.50 |
| Crocker, F. B. | Electric Lightning..... | 3.00 |
| Crocker, F. B. and Wheeler, S. S. | The Practical Management of Dynamos and Motors..... | 1.00 |
| Cushing, H. C. Jr. | Standard Wiring for Electric Light and Power..... | 1.00 |
| Davis, Chas. M. | Standard Tables for Electric Wiremen, with Instructions for Wiremen and Linemen..... | 1.00 |
| Dolbear, Prof. A. E. | The Telephone..... | .50 |
| | Electricity and Magnetism..... | 2.00 |
| Fleming, J. A. | The Alternate Current Transformer, in Theory and Practice..... | 3.00 |
| Gore, G. | The Art of Electro-Metallurgy, Including All Known Processes of Electro-Deposition..... | 2.00 |
| Gore, G. | Theory and Practice of Electro-Deposition, Including Every Known Mode of Depositing Metals—Preparing Metal and for Immersion—Inking Molds and Rendering Them Conducting..... | .80 |
| Grier, Thos. | Grier's Wiring Tables..... | 1.00 |
| Haskins, C. H. | Transformers..... | 1.25 |
| Haskins, C. H. | The Galvanometer and Its Uses..... | 1.50 |
| Hering, Carl | Principles of Dynamo Electro Machines; Practical Directions for Designing and Constructing Dynamos..... | 2.50 |
| Hering, Carl | Practical Directions for Winding Magnets and Dynamos..... | 1.25 |
| Hopkins, W. J. | Telephone Lines and Their Properties..... | 1.50 |
| Hopkins, Geo. M. | Experimental Science, Elementary, Practical and Experimental Physics.. | 4.00 |
| Houston, E. J. and Kennelly, A. E. | Electrical Engineering Leaflets..... | 1.50 |
| Houston, E. J. | Electricity and Magnetism..... | 1.00 |
| Houston, E. J. and Kennelly, A. E. | Electro-Magnetism (Elementary Electro-Technical Series)..... | 1.00 |
| Houston, E. J. | Dictionary of Electrical Words, Terms and Phrases..... | 5.00 |
| Houston, E. J. and Kennelly, A. E. | Electric Street Railways..... | 1.00 |
| Houston, E. J. and Kennelly, A. E. | Electro-Dynamic Machinery..... | 2.50 |
| Kennelly, A. E. | Induction Coils, How Made and How Used..... | .50 |

BOOKS—Continued.

| Author. | TITLE. | Price. |
|------------------------------------|---|--------|
| Jackson, D. C. | Electro-Magnetism and the Construction of Continuous Dynamos..... | \$2.25 |
| Kennelly, A. E. | The Theoretical Elements of Electro-Dynamo Machinery..... | 1.50 |
| | Lightning Flashes and Electric Dashes..... | 1.50 |
| Lockwood, T. D. | Electricity, Magnetism and Electric Telegraphy..... | 2.50 |
| Lockwood, T. D. | Electrical Measurements and the Galvanometer..... | 1.50 |
| Lockwood, T. D. | Practical Information for Telephonists..... | 1.00 |
| Loring, A. E. | A Hand-Book of the Electro-Magnetic Telegraph..... | .50 |
| | Marine Electric Lighting..... | 2.00 |
| Maver, Wm. Jr. | American Telegraphy; Systems, Apparatus, Operations..... | 3.50 |
| Maver, Wm. Jr. and Davis, M. M. | The Quadruplex..... | 1.50 |
| McClure, J. B. | Edison and His Inventions..... | 1.00 |
| Meadowcroft, W. H. | The A. B. C. of Electricity..... | .50 |
| Merrill, E. A. | Electric Lighting Specifications..... | 1.50 |
| Merrill, E. A. | Reference Book of Tables and Formulæ for Electric Street Ry. Engineers. | 1.00 |
| Munro, J. and Jamieson | Electricity and Its Uses..... | 1.40 |
| Noll, Augustus | How to Wire Buildings..... | 1.50 |
| | Practical Electrics..... | .75 |
| Sloane, T. O'Connor | Electric Toy Making for Amateurs..... | 1.00 |
| Sloane, T. O'Connor | The Arithmetic of Electricity..... | 1.00 |
| Smith, J. E. | Manual of Telegraphy, Designed for Beginners..... | .30 |
| Tesla, N. | Inventions, Researches and Writings of Nikola Tesla..... | 4.00 |
| Thompson, Silv. P. | Elementary Lessons in Electricity and Magnetism..... | 1.50 |
| Thompson, Edward P. | Röntgen Rays and Phenomena of the Anode and Cathode..... | 1.50 |
| Thompson, Silv. P. | Lectures on the Electro-Magnet..... | 1.00 |
| Thompson, Silv. P. | Dynamo-Electric Machinery..... | 5.50 |
| Trevert, Edward | Dynamos and Electric Motors and All About Them..... | .50 |
| Trevert, Edward | Practical Directions for Armature and Field-Magnet Winding..... | 1.50 |
| Trevert, Edward | Everybody's Handbook of Electricity..... | .50 |
| Trevert, Edward | How to Make a Dynamo..... | .10 |
| Trevert, Edward | A Practical Handbook of Electro-Plating..... | .50 |
| Trevert, Edward | Electricity for Students..... | 1.00 |
| Trevert, Edward | Electrical Measurements for Amateurs..... | 1.00 |
| Trevert, Edward | X-Rays for Everybody..... | .25 |
| Trevert, Edward | How to Make Electric Batteries at Home..... | .25 |
| Urquehart, J. W. | Electro-Plating..... | 2.00 |
| Watson, A. E. | How to Build a One Horse Power Motor or Dynamo..... | .50 |
| Watson, A. E. | How to Build a 1,000-Watt Alternating Current Dynamo or Motor.... | .50 |
| Watson, A. E. | How to Build a One-Half Horse Power Dynamo or Motor..... | .50 |
| Watt, A. | Electro-Deposition..... | 3.50 |
| Webb, H. L. | Telephone Handbook..... | 1.00 |

INTER-COMMUNICATING TELEPHONE WITH AUTOMATIC RETURN SWITCH.



The hook and all the switch connections are mounted upon the door. The connections are all cabled across to the bottom of the box. This permits opening the instrument up without disconnecting or disarranging any of the parts. The smallest size made is a 10 point, which, of course, will answer for any less number. The next size is a 16 point. We also furnish these instruments with backboards and battery boxes, where desired, and arranged as desk sets also.

The great drawback to the more general use of the inter-communicating telephone system has been in a large measure due to a lack in the instruments, and the trouble incidental to the employment of a manual switch which required to be returned to its normal position by hand after each call. The constant omission on the part of one or other of those using the instruments resulted in unsatisfactory service. Our Home Return Automatic Switch entirely overcomes this trouble, as it is arranged so that the replacing of the receiver upon the hook causes the switch to fly back to its own point.

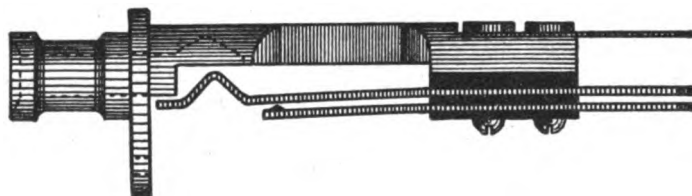
To call up, the switch lever is simply turned around until it rests upon the point of connection with the instrument it is desired to call. A slight pressure upon the switch knob rings

up the bell of such instrument, and when the conversation is finished the replacing of the receiver returns the switch to its own point. It is not necessary to first remove the receiver in this system before making a call.

This switch is well constructed mechanically, and all the working parts which are liable to wear are of "Stubbs" steel and case hardened.

Trade Word.

| | | Price. |
|------------|--------------------------------|---------------|
| Trueness. | 10 point..... | each, \$18.00 |
| Turban. | 10 point, with backboard..... | " 20.00 |
| Turbidly. | 16 point..... | " 24.00 |
| Turbot. | 16 point, with backboard..... | " 25.00 |
| Turbulent. | 10 point, with desk stand..... | " 25.00 |
| Turf. | 16 point, with desk stand..... | " 30.00 |



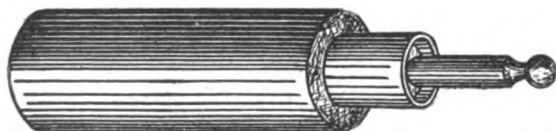
METALLIC CIRCUIT JACK.

| | |
|--------------------|--------|
| Trade Word. | Price. |
| Truffle. Each..... | \$1.00 |



GROUND CIRCUIT PLUG.

| | |
|-------------------|--------|
| Trade Word. | Price. |
| Truism. Each..... | \$0.50 |



METALLIC CIRCUIT PLUG.

| | |
|--------------------|--------|
| Trade Word. | Price. |
| Trumpet. Each..... | \$1.00 |



GROUND JACK No. 1.

| | |
|-----------------------|--------|
| Trade Word. | Price. |
| Trumpeting. Each..... | \$0.25 |

TABLES.

MEASUREMENT OF INSULATION RESISTANCE.

To measure the insulation resistance to ground of any circuit, when current is on, connect voltmeter V, Fig. 3, to double throw switch S, one pair of contacts on which are connected to the circuit, the other pair respectively to ground and switch S'. Throw switch S into the position noted in the diagram, and note reading on V, which indicate as V_1 ; throw switch to the left, thereby connecting the line through voltmeter to ground, and note reading on V, which indicate as V_2 . Then, if r , is the resistance of the voltmeter, the insulation resistance R of the line can be determined by the following formula:

$$R = \left(\frac{r \times V_1}{V_2} \right) - r, \text{ or } R = r \times \left(\frac{V_1}{V_2} - 1 \right)$$

The use of switch S, will enable the testing of insulation resistance of each side of the circuit, according to the position in which it is placed.

The use of a voltmeter, either portable or switchboard, for determining the presence of grounds on a circuit, or the amount of insulation resistance, is now considered good engineering, and in some places is a requirement of the Electrical Inspection Departments. Where the resistance of a voltmeter is known the insulation resistance can be readily determined by the above formula. The voltmeter switches listed on page 258 of this catalogue, are designed to be used for this purpose.

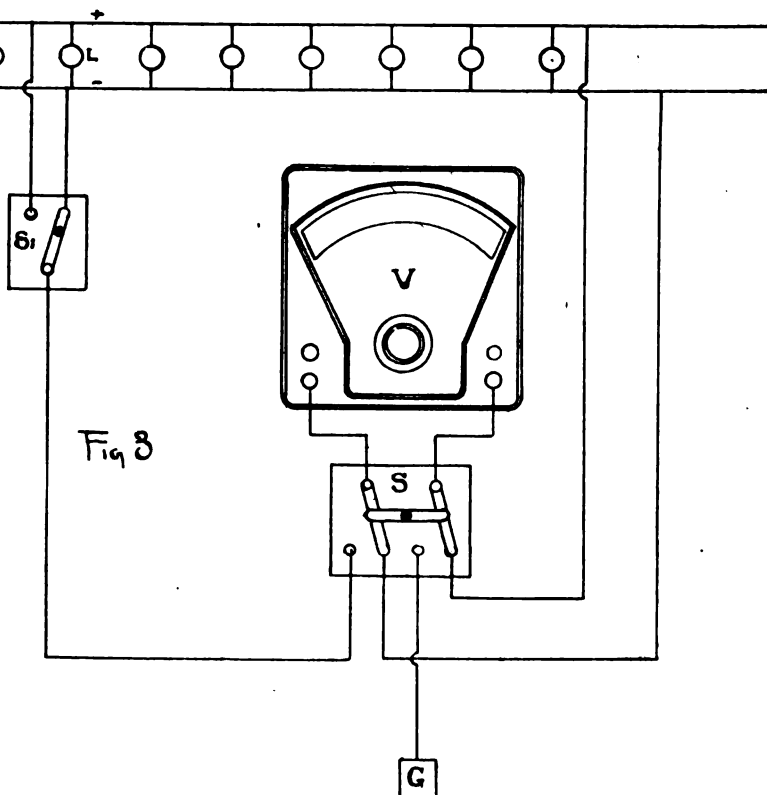


TABLE OF COMPARISON OF CENTIGRADE AND FAHRENHEIT SCALES.

THERMOMETER SCALES.

| Cent. | Fahr. | Cent. | Fahr. | Cent. | Fahr. | Cent. | Fahr. | Cent. | Fahr. | Cent. | Fahr. | Cent. | Fahr. | Cent. | Fahr. |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0 | 32.0 | 13 | 55.4 | 26 | 78.8 | 39 | 102.2 | 52 | 125.6 | 65 | 149.0 | 78 | 172.4 | 91 | 195.8 |
| 1 | 33.8 | 14 | 57.2 | 27 | 80.6 | 40 | 104.0 | 53 | 127.4 | 66 | 150.8 | 79 | 174.2 | 92 | 197.6 |
| 2 | 35.6 | 15 | 59.0 | 28 | 82.4 | 41 | 105.8 | 54 | 129.2 | 67 | 152.6 | 80 | 176.0 | 93 | 199.4 |
| 3 | 37.4 | 16 | 60.8 | 29 | 84.2 | 42 | 107.6 | 55 | 131.0 | 68 | 154.4 | 81 | 177.8 | 94 | 201.2 |
| 4 | 39.2 | 17 | 62.6 | 30 | 86.0 | 43 | 109.4 | 56 | 132.8 | 69 | 156.2 | 82 | 179.6 | 95 | 203.0 |
| 5 | 41.0 | 18 | 64.4 | 31 | 87.8 | 44 | 111.2 | 57 | 134.6 | 70 | 158.0 | 83 | 181.4 | 96 | 204.8 |
| 6 | 42.8 | 19 | 66.2 | 32 | 89.6 | 45 | 113.0 | 58 | 136.4 | 71 | 159.8 | 84 | 183.2 | 97 | 206.6 |
| 7 | 44.6 | 20 | 68.0 | 33 | 91.4 | 46 | 114.8 | 59 | 138.2 | 72 | 161.6 | 85 | 185.0 | 98 | 208.4 |
| 8 | 46.4 | 21 | 69.8 | 34 | 93.2 | 47 | 116.6 | 60 | 140.0 | 73 | 163.4 | 86 | 186.8 | 99 | 210.2 |
| 9 | 48.2 | 22 | 71.6 | 35 | 95.0 | 48 | 118.4 | 61 | 141.8 | 74 | 165.2 | 87 | 188.6 | 100 | 212.0 |
| 10 | 50.0 | 23 | 73.4 | 36 | 96.8 | 49 | 120.2 | 62 | 143.6 | 75 | 167.0 | 88 | 190.4 | | |
| 11 | 51.8 | 24 | 75.2 | 37 | 98.6 | 50 | 122.0 | 63 | 145.4 | 76 | 168.8 | 89 | 192.2 | | |
| 12 | 53.6 | 25 | 77.0 | 38 | 100.4 | 51 | 123.8 | 64 | 147.2 | 77 | 170.6 | 90 | 194.0 | | |

Seventy-five deg. Fahr., or 23.8 deg. Cent. is the standard temperature for measuring electrical resistances in submarine cable tests.

Sixty deg. Fahr., or 15.5 deg. Cent., is the standard temperature for measuring the electrical resistance of wire for general telegraphic and electric light purposes; it is assumed to be the average temperature of the air.

Nine deg. Fahr., — 5 deg. Centigrade — 4 deg. Reaumur.

One " " — 5556 deg. Centigrade.

One " Centigrade — 1.8 deg. Fahr.

To convert Fahr. to Centigrade, subtract 32, multiply by 5 and divide by 9.

To convert " to Reaumur, " 32, " 4 " " 9.

To convert Centigrade to Fahr., multiply by 9, divide " 5 " " add 32.

To convert " to Reaumur multiply by 4 and divide by 5.

To convert Reaumur to Fahr., multiply by 9, divide by 4 and add 32.

To convert " to Centigrade multiply by 5, divide by 4.

If temperature is below freezing, the above formula should read "subtract from 32" in place of "subtract 32" and "add 32."

TABLES.

Ohm's Law.

Ohm's law is a method of expressing the relationship existing between the electro-motive force, current and resistance, and is practically the basis of most electrical computations. It is expressed in various forms, as follows:

Current flow equals the electro-motive force divided by the resistance.

$$\text{Current flow} = \frac{\text{Electro-motive force}}{\text{Resistance}} \text{ or } C = \frac{E}{R}$$

Electro-motive force equals the current flow multiplied by the resistance.

$$\text{Electro-motive force} = \text{Current flow} \times \text{Resistance} \text{ or } E = C \times R.$$

Resistance equals the electro-motive force divided by the Current flow.

$$\text{Resistance} = \frac{\text{Electro-motive force}}{\text{Current flow}} \text{ or } R = \frac{E}{C}$$

Electro-motive force varies directly as the current and resistance.

Resistance varies directly with the electro-motive force and inversely as the current.

Current varies directly with the electro-motive force and inversely as the resistance.

Mil.

The "mil," whose expressed value is $\frac{\text{one}}{\text{one-thousandth}}$ (.001) of an inch, is the practical basis for determining the diameters and thereby the areas of all wires used as electric conductors. The diameter being given, the area is obtained by the well known rule, "the area of a circle, in circular units, is equal to the square of its diameter;" hence, the square of the diameter of a wire expressed in mils equals the area of its cross section. $d^2 = A$, which area is expressed in circular mils or CM; hence, $D^2 = CM$.

Copper Wire Resistance.

The basis for computation of resistance of copper wires is a wire one foot long and one circular mil of cross section known as a mil-foot, and which has a resistance at 24° C or 75° F of about 10.7 ohms.

The resistance of a copper wire varies directly as its length and inversely as its cross section; hence,

The resistance (R) of a copper wire is equal to its length (D), multiplied by the resistance of a mil-foot and divided by the cross section in circular mils (CM), or $R = \frac{D \times 10.7}{CM}$ also,

The cross section (CM) in circular mils of a wire is equal to its length (D) multiplied by the resistance of a mil-foot divided by its resistance (R).

$$CM = \frac{D \times 10.7}{R} \text{ also,}$$

The length (D) of a wire is equal to the cross section in circular mils (CM) multiplied by its resistance (R) and divided by the resistance of a mil-foot.

$$D = \frac{CM \times R}{10.7}$$

Wiring Formula.

Ohm's law is practically the basis for the various formulæ in general use for determining the proper sizes of wire to use to carry various currents. It is essential to know the amount of current expressed in amperes, the distance, and to decide upon the loss to allow in transmission; the best rule is as follows;

The cross section (CM) of the necessary wire is found by multiplying twice the distance one way (2D) by amount of current expressed in amperes (C) and this by the resistance of one mil-foot (10.7) and dividing by the the loss in transmission expressed in volts (V).

$$\text{Or } CM = \frac{2D \times C \times 10.7}{V} \quad \text{Or } CM = \frac{D \times C \times 21.4}{V}$$

TABLES.

For illustration: What size wire is necessary to carry 75 16 c. p. lights at 110 volts 105 feet at 3 per cent. loss? By reference to the following table it will be noted that 75 lights at .5 ampere per light will equal 37.5 amperes, and at 3 per cent. loss there will be a drop of 3.3 volts; by use of the wiring formula above the proper size of wire is determined as follows, $\frac{105 \times 37.5 \times 21.4}{3.3} = 25,534$ C. M.; by reference to wire table it will be found that the nearest size of B. & S. gauge wire is No. 6, which has an area of 26,250 C. M.; it will also be noted that the amount of current is also within the limits allowed by the Underwriters.

What size wire is necessary to operate a 5 H. P. 220 volt motor, 200 feet from center of distribution, allowing a drop of 2 per cent.? By reference to table it will be noted that, assuming an efficiency of 80 per cent. in the motor, there will be required 4.2 amperes per horse power or 21 amperes for 5 H. P. and a drop of 4.4 volts, the proper size being determined as follows, $\frac{200 \times 21 \times 21.4}{4.4} = 20,427$ C. M. or a No. 7 B. & S. gauge wire.

Amperes Consumed in Incandescent Lamps on the Basis of 3.6 Watts Per C. P.

| Candle Power. | VOLTS. | | | |
|---------------|--------|------|------|-----|
| | 52 | 100 | 110 | 220 |
| 10 | .69 | .36 | .32 | .16 |
| 16 | 1.10 | .57 | .5 | .26 |
| 20 | 1.38 | .72 | .65 | .33 |
| 32 | 2.21 | 1.15 | 1.04 | .52 |
| 50 | 3.45 | 1.8 | 1.6 | .8 |
| 100 | 6.9 | 3.6 | 3.2 | 1.6 |

Amperes Per Horse Power.

| Voltage. | EFFICIENCY OF MOTOR. | | | |
|----------|----------------------|--------------|--------------|--------------|
| | 75 per cent. | 80 per cent. | 85 per cent. | 90 per cent. |
| 110 | 9. | 8.4 | 7.9 | 7.5 |
| 220 | 4.5 | 4.2 | 3.95 | 3.75 |
| 500 | 1.98 | 1.86 | 1.75 | 1.66 |

Where a wiring table is not at hand and it is desired to ascertain the weight of any bare copper conductor, it can be roughly determined in accordance with the following:

1000 feet of wire having an area of 1000 circular mils weighs approximately three pounds, and the weight of any bare conductor can, therefore, be determined by multiplying its area in circular mils by .003.

TABLES.

Tables of dimensions, weight, resistance and allowed carrying capacity of bare copper wire as adopted by the American Institute of Electrical Engineers.

| American Wire Gauge, B. & S. | Diameter in Inches. | Area. | | Weight. Lbs. Per 1000 ft. | Length. | | Resistance in International ohms at 68° F. | | Underwriters allowed capacity in amperes. | |
|------------------------------|---------------------|----------------|---------|------------------------------|--------------|---------------|--|-----------------|---|----------------|
| | | Circular Mils. | Inches. | | Feet per lb. | Feet per ohm. | Ohms per 1000 feet. | Ohms per pound. | Rubber Covered. | Weather-proof. |
| 0000 | .460 | 211600. | .166190 | 640.5 | 1.561 | 20440. | .04893 | .00007639 | 210 | 312 |
| 000 | .4096 | 167800. | .131793 | 508.0 | 1.969 | 16210. | .06170 | .0001215 | 177 | 262 |
| 00 | .3648 | 133100. | .104520 | 402.8 | 2.482 | 12850. | .07780 | .0001931 | 150 | 220 |
| 0 | .3249 | 105500. | .082932 | 319.5 | 3.130 | 10190. | .09811 | .0003071 | 127 | 185 |
| 1 | .2893 | 83690. | .065733 | 253.3 | 3.947 | 8083. | .1237 | .0004883 | 107 | 156 |
| 2 | .2576 | 66370. | .052129 | 200.9 | 4.977 | 6410. | .1560 | .0007765 | 90 | 131 |
| 3 | .2294 | 52630. | .041338 | 159.3 | 6.276 | 5084. | .1967 | .001235 | 76 | 110 |
| 4 | .2043 | 41740. | .032784 | 126.4 | 7.914 | 4031. | .2480 | .001963 | 65 | 92 |
| 5 | .1819 | 33100. | .025998 | 100.2 | 9.980 | 3197. | .3128 | .003122 | 54 | 77 |
| 6 | .1620 | 26250. | .020617 | 79.46 | 12.58 | 2535. | .3944 | .004963 | 46 | 65 |
| 7 | .1443 | 20820. | .016349 | 63.02 | 15.87 | 2011. | .4973 | .007892 | ..... | ..... |
| 8 | .1285 | 16510. | .012966 | 49.98 | 20.01 | 1595. | .6271 | .01255 | 33 | 46 |
| 9 | .1144 | 13090. | .010284 | 39.63 | 25.23 | 1265. | .7908 | .01995 | ..... | ..... |
| 10 | .1019 | 10380. | .008153 | 31.43 | 31.82 | 1003. | .9972 | .03173 | 24 | 32 |
| 11 | .09074 | 8234. | .006467 | 24.93 | 40.12 | 795.3 | 1.257 | .05045 | ..... | ..... |
| 12 | .08081 | 6530. | .005128 | 19.77 | 50.59 | 630.7 | 1.586 | .08022 | 17 | 23 |
| 13 | .07196 | 5178. | .004067 | 15.68 | 63.79 | 500.1 | 1.999 | .1270 | ..... | ..... |
| 14 | .06408 | 4107. | .003225 | 12.43 | 80.44 | 396.6 | 2.521 | .2028 | 12 | 16 |
| 15 | .05707 | 3257. | .002557 | 9.858 | 101.4 | 314.5 | 3.179 | .3225 | ..... | ..... |
| 16 | .05082 | 2583. | .002028 | 7.818 | 127.9 | 249.4 | 4.009 | .5128 | 6 | 8 |
| 17 | .04526 | 2048. | .001608 | 6.200 | 161.3 | 197.8 | 5.055 | .8153 | ..... | ..... |
| 18 | .04030 | 1624. | .001275 | 4.917 | 203.4 | 156.9 | 6.374 | 1.296 | 3 | 5 |
| 19 | .03589 | 1288. | .001011 | 3.899 | 256.5 | 124.4 | 8.038 | 2.061 | ..... | ..... |
| 20 | .03196 | 1022. | .000802 | 3.092 | 323.4 | 98.66 | 10.14 | 3.278 | ..... | ..... |
| 21 | .02846 | 810.1 | .000636 | 2.452 | 407.8 | 78.24 | 12.78 | 5.212 | ..... | ..... |
| 22 | .02535 | 624.4 | .000504 | 1.945 | 514.2 | 62.05 | 16.12 | 8.287 | ..... | ..... |
| 23 | .02257 | 509.5 | .000400 | 1.542 | 648.4 | 49.21 | 20.32 | 13.18 | ..... | ..... |
| 24 | .02010 | 404.0 | .000317 | 1.223 | 817.6 | 39.02 | 25.63 | 20.95 | ..... | ..... |
| 25 | .01790 | 320.4 | .000251 | .9698 | 1031. | 30.95 | 32.31 | 33.32 | ..... | ..... |
| 26 | .01594 | 254.1 | .000199 | .7692 | 1300. | 24.54 | 40.75 | 52.97 | ..... | ..... |
| 27 | .01420 | 201.5 | .000158 | .6100 | 1639. | 19.46 | 51.38 | 84.23 | ..... | ..... |
| 28 | .01264 | 159.8 | .000125 | .4837 | 2067. | 15.43 | 64.79 | 133.9 | ..... | ..... |
| 29 | .01126 | 126.7 | .000099 | .3836 | 2607. | 12.24 | 81.70 | 213.0 | ..... | ..... |
| 30 | .01003 | 100.5 | .000078 | .3042 | 3287. | 9.707 | 103.0 | 338.6 | ..... | ..... |
| 31 | .008928 | 79.70 | .000062 | .2413 | 4145. | 7.698 | 129.9 | 538.4 | ..... | ..... |
| 32 | .007950 | 63.21 | .000049 | .1913 | 5227. | 6.105 | 163.8 | 856.2 | ..... | ..... |
| 33 | .007080 | 50.13 | .000039 | .1517 | 6591. | 4.841 | 206.6 | 1361. | ..... | ..... |
| 34 | .006305 | 39.75 | .000031 | .1203 | 8311. | 3.839 | 260.5 | 2165. | ..... | ..... |
| 35 | .005615 | 31.52 | .000024 | .09543 | 10480. | 3.045 | 328.4 | 3441. | ..... | ..... |
| 36 | .005000 | 25.00 | .000019 | .07568 | 13210. | 2.414 | 414.2 | 5473. | ..... | ..... |
| 37 | .004453 | 19.83 | .000015 | .06001 | 16660. | 1.915 | 522.2 | 8702. | ..... | ..... |
| 38 | .003965 | 15.72 | .000012 | .04759 | 21010. | 1.519 | 658.5 | 13870. | ..... | ..... |
| 39 | .003531 | 12.47 | .000009 | .03774 | 26500. | 1.204 | 830.4 | 22000. | ..... | ..... |
| 40 | .003145 | 9.888 | .000007 | .02993 | 33410. | .9550 | 1047. | 34980. | ..... | ..... |

TABLES.

Comparing the Different Gauges in General Use by Electricians, with their Diameters and Areas.

| GAUGE No. | AMERICAN OR BROWN & SHARPE. | | LONDON, ENGLISH OR BIRMINGHAM. | | NEW BRITISH STANDARD. | |
|-----------|-----------------------------|------------------------------|--------------------------------|------------------------------|-----------------------|------------------------------|
| | Diameter in Inches. | Area in C M—d ² . | Diameter in Inches. | Area in C M—d ² . | Diameter in Inches. | Area in C M—d ² . |
| 7-0 ..... | ..... | ..... | ..... | ..... | .500 | 250000 |
| 6-0 ..... | ..... | ..... | ..... | ..... | .464 | 215296 |
| 5-0 ..... | ..... | ..... | ..... | ..... | .432 | 186624 |
| 4-0 | .46000 | 211600 | .454 | 206116 | .400 | 160000 |
| 3-0 | .40964 | 167805 | .425 | 180625 | .372 | 135384 |
| 2-0 | .36480 | 133079 | .380 | 144400 | .348 | 121104 |
| 1-0 | .32486 | 105534 | .340 | 115600 | .324 | 104976 |
| 1 | .28930 | 83694 | .300 | 90000 | .300 | 90000 |
| 2 | .25763 | 66373 | .284 | 80656 | .276 | 76176 |
| 3 | .22942 | 52633 | .259 | 67081 | .252 | 63504 |
| 4 | .20431 | 41742 | .238 | 56644 | .232 | 53824 |
| 5 | .18194 | 33102 | .220 | 48400 | .212 | 44944 |
| 6 | .16202 | 26250 | .203 | 41209 | .192 | 36864 |
| 7 | .14428 | 20816 | .180 | 32400 | .176 | 30976 |
| 8 | .12849 | 16509 | .165 | 27225 | .160 | 25600 |
| 9 | .11443 | 13094 | .148 | 21904 | .144 | 20736 |
| 10 | .10189 | 10381 | .134 | 17956 | .128 | 16384 |
| 11 | .090742 | 8234 | .120 | 14400 | .116 | 13456 |
| 12 | .080808 | 6529 | .109 | 11881 | .104 | 10816 |
| 13 | .071961 | 5178 | .095 | 9025 | .092 | 8464 |
| 14 | .064084 | 4106 | .083 | 6889 | .080 | 6400 |
| 15 | .057068 | 3256 | .072 | 5184 | .072 | 5184 |
| 16 | .05082 | 2582 | .065 | 4225 | .064 | 4096 |
| 17 | .045257 | 2048 | .058 | 3364 | .056 | 3136 |
| 18 | .040303 | 1624 | .049 | 2401 | .048 | 2304 |
| 19 | .03589 | 1288 | .042 | 1764 | .040 | 1600 |
| 20 | .031961 | 1021 | .035 | 1225 | .036 | 1296 |
| 21 | .028462 | 810 | .032 | 1024 | .032 | 1024 |
| 22 | .025347 | 642 | .028 | 784 | .028 | 784 |
| 23 | .022571 | 509 | .025 | 625 | .024 | 576 |
| 24 | .0201 | 404 | .022 | 484 | .022 | 484 |
| 25 | .0179 | 320 | .020 | 400 | .020 | 400 |
| 26 | .01594 | 254 | .018 | 324 | .018 | 324 |
| 27 | .014195 | 201 | .016 | 256 | .0164 | 269 |
| 28 | .012641 | 159 | .014 | 196 | .0148 | 219 |
| 29 | .011257 | 126 | .013 | 169 | .0136 | 185 |
| 30 | .010025 | 100 | .012 | 144 | .0124 | 154 |
| 31 | .008928 | 79 | .010 | 100 | .0116 | 134 |
| 32 | .00795 | 63 | .009 | 81 | .0108 | 117 |
| 33 | .00708 | 50 | .008 | 64 | .010 | 100 |
| 34 | .006304 | 39 | .007 | 49 | .0092 | 84 |
| 35 | .005614 | 31 | .005 | 25 | .0084 | 70 |
| 36 | .005 | 25 | .004 | 16 | .0076 | 58 |
| 37 | .004453 | 19 | ..... | ..... | .0068 | 46 |
| 38 | .003965 | 15 | ..... | ..... | .006 | 36 |
| 39 | .003531 | 12 | ..... | ..... | .0052 | 27 |
| 40 | .003144 | 9 | ..... | ..... | .0048 | 23 |
| 41 ..... | ..... | ..... | ..... | ..... | .0044 | 19 |
| 42 ..... | ..... | ..... | ..... | ..... | .004 | 16 |
| 43 ..... | ..... | ..... | ..... | ..... | .0036 | 13 |

TABLES.

| Diameters of Single and Double Braided Rubber Insulated Wire. | | | | | Dimensions of Iron Conduits. | | | | | |
|---|-------------------|---------------|-----------------------------|---------------|--------------------------------|--------------------------|-------------------|---|--------------------------|-------------------|
| Size. | Single Conductor. | | Double Conductor. Parallel. | | Loricated Conduit. Heavy Wall. | | | Iron Armored Interior Conduit. Thin Wall. | | |
| | Single Braid. | Double Braid. | Single Braid. | Double Braid. | List Size. | Nominal Inside Diameter. | Outside Diameter. | List Size. | Nominal Inside Diameter. | Outside Diameter. |
| 1,000,000 c. m. | 1.5 | 1.537 | ..... | ..... | Inches. | Inches. | Inches. | Inches. | Inches. | Inches. |
| 950,000 " | 1.468 | 1.491 | ..... | ..... | ¾ | .468 | .675 | 1 1/8 | .4375 | .675 |
| 900,000 " | 1.406 | 1.437 | ..... | ..... | ½ | .609 | .840 | ¾ | .616 | .840 |
| 850,000 " | 1.375 | 1.406 | ..... | ..... | ¾ | .812 | 1.05 | ¾ | .740 | 1.05 |
| 800,000 " | 1.343 | 1.374 | ..... | ..... | 1 | 1.031 | 1.315 | 1 | 1.000 | 1.315 |
| 750,000 " | 1.312 | 1.343 | ..... | ..... | 1 1/4 | 1.375 | 1.66 | 1 1/4 | 1.200 | 1.66 |
| 700,000 " | 1.292 | 1.328 | ..... | ..... | 1 1/2 | 1.593 | 1.90 | 1 1/2 | 1.500 | 1.90 |
| 650,000 " | 1.25 | 1.286 | ..... | ..... | 2 | 2.065 | 2.375 | 2 | 2.000 | 2.375 |
| 600,000 " | 1.218 | 1.254 | ..... | ..... | 2 1/2 | 2.468 | 2.875 | 2 1/2 | 2.480 | 2.875 |
| 550,000 " | 1.187 | 1.223 | ..... | ..... |  |  |  |  |  |  |
| 500,000 " | 1.125 | 1.161 | ..... | ..... |  |  |  |  |  |  |
| 450,000 " | 1.093 | 1.129 | ..... | ..... |  |  |  |  |  |  |
| 400,000 " | 1.068 | 1.104 | ..... | ..... |  |  |  |  |  |  |
| 350,000 " | 1. | 1.036 | ..... | ..... |  |  |  |  |  |  |
| 300,000 " | .94 | .976 | ..... | ..... |  |  |  |  |  |  |
| 250,000 " | .906 | .942 | ..... | ..... |  |  |  |  |  |  |
| B. & S. 00 00 | .790 | .825 | ..... | ..... |  |  |  |  |  |  |
| 0 00 | .687 | .723 | ..... | ..... |  |  |  |  |  |  |
| 00 | .650 | .686 | ..... | ..... |  |  |  |  |  |  |
| 0 | .590 | .626 | ..... | ..... |  |  |  |  |  |  |
| 1 | .540 | .577 | ..... | ..... |  |  |  |  |  |  |
| 2 | .500 | .535 | ..... | ..... |  |  |  |  |  |  |
| 3 | .437 | .47 | ..... | ..... |  |  |  |  |  |  |
| 4 | .386 | .419 | ..... | ..... |  |  |  |  |  |  |
| 6 | .375 | .408 | ..... | ..... |  |  |  |  |  |  |
| Solid 8 | .300 | .345 | ..... | ..... |  |  |  |  |  |  |
| " 10 | .275 | .320 | .445 | .500 | | | | | | |
| " 12 | .240 | .295 | .420 | .485 | | | | | | |
| " 14 | .205 | .259 | .365 | .400 | | | | | | |

Properties and Dimensional Data of Concentric Laid Electric Light and Power Cables.

| B. & S. | Circular Mils. | No. Strands. | Diameter Bare Cable. | Diameter Rubber Insd. | Weight 1000 Feet Bare. | Weight 1000 Feet 3 Braid. | Weight 1000 Feet 2 Braid. | Resistance in Ohms per 1000 ft. | Underwriters Carrying Capacity. | |
|---------|----------------|--------------|----------------------|-----------------------|------------------------|---------------------------|---------------------------|---------------------------------|---------------------------------|--------------------------|
| | | | | | | | | | Rubber Insulation | Weather-proof Insulation |
| ..... | 1,000,000 | 127 | 1.16 | 1.5 | 3050 lbs. | 3573 lbs | ..... | .01069 | 650 | 1000 |
| ..... | 950,000 | 127 | 1.125 | 1.468 | 2890 " | 3450 " | ..... | .0112 | 625 | 960 |
| ..... | 900,000 | 127 | 1.093 | 1.406 | 2760 " | 3240 " | ..... | .01187 | 600 | 920 |
| ..... | 850,000 | 127 | 1.06 | 1.375 | 2590 " | 3088 " | ..... | .01234 | 575 | 880 |
| ..... | 800,000 | 127 | 1.045 | 1.343 | 2446 " | 2900 " | ..... | .01336 | 550 | 840 |
| ..... | 750,000 | 91 | 1. | 1.312 | 2290 " | 2720 " | ..... | .01426 | 525 | 800 |
| ..... | 700,000 | 91 | .969 | 1.292 | 2135 " | 2546 " | ..... | .01527 | 500 | 760 |
| ..... | 650,000 | 91 | .927 | 1.25 | 1980 " | 2370 " | ..... | .01646 | 475 | 720 |
| ..... | 600,000 | 91 | .875 | 1.218 | 1836 " | 2203 " | ..... | .01781 | 450 | 680 |
| ..... | 550,000 | 91 | .850 | 1.187 | 1675 " | 2020 " | ..... | .01943 | 420 | 635 |
| ..... | 500,000 | 61 | .819 | 1.125 | 1525 " | 1865 " | ..... | .02138 | 390 | 590 |
| ..... | 450,000 | 61 | .765 | 1.093 | 1380 " | 1670 " | ..... | .02374 | 360 | 543 |
| ..... | 400,000 | 61 | .728 | 1.068 | 1223 " | 1470 " | ..... | .02672 | 330 | 500 |
| ..... | 350,000 | 61 | .675 | 1.000 | 1068 " | 1291 " | ..... | .03054 | 300 | 450 |
| ..... | 300,000 | 37 | .625 | .94 | 918 " | 1090 " | ..... | .03562 | 270 | 400 |
| ..... | 250,000 | 19 | .594 | .906 | 762 " | 970 " | ..... | .04276 | 240 | 356 |
| 0000 | 211,600 | 19 | .530 | .790 | 640 " | 747 " | 713 | .0489 | 210 | 312 |
| 000 | 168,100 | 19 | .470 | .687 | 510 " | 610 " | 573 | .06167 | 177 | 262 |
| 00 | 133,225 | 19 | .422 | .650 | 408 " | 483 " | 470 | .0778 | 150 | 220 |
| 0 | 105,625 | 19 | .375 | .590 | 322 " | 390 " | 378 | .09811 | 127 | 185 |
| 1 | 83,521 | 7 | .330 | .540 | 255 " | 308 " | 297 | .1237 | 107 | 156 |
| 2 | 66,564 | 7 | .291 | .500 | 204 " | 258 " | 247 | .1560 | 90 | 131 |
| 3 | 52,441 | 7 | .261 | .437 | 161 " | 205 " | 195 | .1967 | 76 | 110 |
| 4 | 41,616 | 7 | .231 | .386 | 128 " | 162 " | 156 | .248 | 65 | 92 |

TABLES.

ROLLED COPPER BAR DATA.

Specific Gravity 8.89. Resistance mil-foot 10.69 Ohms 20° C.

DECIMAL EQUIVALENTS.

| Inches Wide. | Inches Thick. | Weight Per Foot. | Area in Square Inches. | Area in Cir. Mills. | Ohms Per Foot. | 4ths. | 8ths. | 16ths. | 32ds. | 64ths. | Decimal Equivalents | Fraction of inch in Millimeters. |
|--------------|---------------|------------------|------------------------|---------------------|----------------|-------|-------|--------|-------|--------|---------------------|----------------------------------|
| 1/8 | 1/8 | .1205 | .0312 | 39,788 | .000267 | | | | | 1 | .015625 | .397 |
| 1/8 | 1/8 | .2410 | .0625 | 79,577 | .0001334 | | | | 1 | 2 | .03125 | .79 |
| 1/8 | 1/8 | .482 | .125 | 159,154 | .0000667 | | | | | 3 | .046875 | 1.19 |
| 1/8 | 1/8 | .964 | .25 | 318,308 | .0000334 | | | 1 | 2 | 4 | .0625 | 1.59 |
| 1/8 | 1/8 | .1807 | .0496 | 59,682 | .000178 | | | | | 5 | .078125 | 1.98 |
| 3/8 | 1/8 | .3615 | .0938 | 119,364 | .000089 | | | | 3 | 6 | .09375 | 2.38 |
| 3/8 | 1/8 | .723 | .1875 | 238,731 | .0000444 | | | | | 7 | .109375 | 2.78 |
| 3/8 | 3/8 | 1.0845 | .2813 | 358,097 | .0000276 | | 1 | 2 | 4 | 8 | .125 | 3.18 |
| 3/8 | 3/8 | 1.446 | .375 | 477,462 | .0000222 | | | | | 9 | .140625 | 3.57 |
| 3/8 | 3/8 | 2.169 | .5626 | 716,193 | .0000138 | | | | | 10 | .15625 | 3.97 |
| 1 | 1/8 | .241 | .0625 | 79,577 | .0001334 | | | | | 11 | .171875 | 4.37 |
| 1 | 1/8 | .482 | .125 | 159,154 | .0000667 | | | 3 | 6 | 12 | .1875 | 4.76 |
| 1 | 1/8 | .964 | .250 | 318,308 | .0000334 | | | | | 13 | .203125 | 5.16 |
| 1 | 3/8 | 1.446 | .375 | 477,462 | .0000222 | | | | 7 | 14 | .21875 | 5.56 |
| 1 | 3/8 | 1.928 | .500 | 636,616 | .0000168 | | | | | 15 | .234375 | 5.95 |
| 1 | 3/8 | 2.410 | .625 | 795,770 | .0000133 | 1 | 2 | 4 | 8 | 16 | .250 | 6.35 |
| 1 | 3/8 | 2.892 | .750 | 954,924 | .0000111 | | | | | 17 | .265625 | 6.75 |
| 1 | 1 | 3.856 | 1. | 1,273,232 | .0000083 | | | | | 18 | .28125 | 7.15 |
| 1 1/8 | 1/8 | .301 | .078 | 99,471 | .0001068 | | | | | 19 | .296875 | 7.54 |
| 1 1/8 | 1/8 | .602 | .156 | 198,942 | .0000532 | | | 5 | 10 | 20 | .3125 | 7.94 |
| 1 1/8 | 1/8 | 1.205 | .3125 | 397,885 | .0000267 | | | | | 21 | .328125 | 8.34 |
| 1 1/8 | 3/8 | 1.807 | .468 | 596,826 | .0000177 | | | | | 22 | .34375 | 8.73 |
| 1 1/8 | 3/8 | 2.410 | .625 | 795,770 | .0000133 | | | | | 23 | .359375 | 9.13 |
| 1 1/8 | 3/8 | 3.01 | .7812 | 994,710 | .0000106 | | | 3 | 6 | 12 | .375 | 9.53 |
| 1 1/8 | 3/8 | 3.612 | .916 | 1,193,652 | .0000089 | | | | | 24 | .390625 | 9.92 |
| 1 1/8 | 1 1/8 | .3615 | .0938 | 119,369 | .000089 | | | | | 25 | .40625 | 10.32 |
| 1 1/8 | 1 1/8 | .723 | .1875 | 238,731 | .0000444 | | | | | 26 | .421875 | 10.72 |
| 1 1/8 | 1 1/8 | 1.446 | .375 | 477,462 | .0000222 | | | | 7 | 14 | .4375 | 11.12 |
| 1 1/8 | 3/8 | 1.169 | .5625 | 716,193 | .0000168 | | | | | 27 | .453125 | 11.51 |
| 1 1/8 | 3/8 | 2.892 | .750 | 954,924 | .0000111 | | | | | 28 | .46875 | 11.91 |
| 1 1/8 | 3/8 | 3.615 | .9375 | 1,193,690 | .0000089 | | | | | 29 | .484375 | 12.31 |
| 1 1/8 | 3/8 | 4.338 | 1.125 | 1,432,386 | .0000074 | 2 | 4 | 8 | 16 | 32 | .5000 | 12.7 |
| 2 | 1/8 | .964 | .250 | 318,308 | .0000334 | | | | | 33 | .515625 | 13.10 |
| 2 | 1/8 | 1.928 | .500 | 636,616 | .0000167 | | | | | 34 | .53125 | 13.50 |
| 2 | 3/8 | 2.892 | .750 | 954,924 | .0000111 | | | | | 35 | .546875 | 13.89 |
| 2 | 3/8 | 3.856 | 1.000 | 1,273,232 | .0000083 | | | 9 | 18 | 36 | .5625 | 14.29 |
| 2 | 3/8 | 4.820 | 1.25 | 1,591,540 | .0000067 | | | | | 37 | .578125 | 14.69 |
| 2 | 3/8 | 5.784 | 1.500 | 1,909,848 | .0000056 | | | | | 38 | .59375 | 15.09 |
| 2 1/8 | 1/8 | 2.169 | .5625 | 716,193 | .0000148 | | | | | 39 | .609375 | 15.48 |
| 2 1/8 | 3/8 | 3.253 | .8437 | 1,074,296 | .0000092 | | | | | 40 | .625 | 15.88 |
| 2 1/8 | 3/8 | 4.338 | 1.125 | 1,432,386 | .0000074 | | | | | 41 | .640625 | 16.28 |
| 2 1/8 | 3/8 | 5.422 | 1.406 | 1,790,460 | .0000059 | | | | | 42 | .65625 | 16.67 |
| 2 1/8 | 3/8 | 6.506 | 1.687 | 2,148,580 | .0000046 | | | | | 43 | .671875 | 17.07 |
| 2 1/8 | 3/8 | 2.410 | .625 | 795,770 | .0000133 | | | 11 | 22 | 44 | .6875 | 17.47 |
| 2 1/8 | 3/8 | 3.615 | .937 | 1,193,652 | .0000089 | | | | | 45 | .703125 | 17.86 |
| 2 1/8 | 3/8 | 4.820 | 1.25 | 1,591,540 | .0000067 | | | | | 23 | .71875 | 18.26 |
| 2 1/8 | 3/8 | 6.025 | 1.562 | 1,989,420 | .0000053 | | | | | 47 | .734375 | 18.66 |
| 2 1/8 | 3/8 | 7.23 | 1.875 | 2,387,310 | .0000044 | 3 | 6 | 12 | 24 | 48 | .75 | 19.01 |
| 3 | 3/8 | 4.338 | 1.125 | 1,432,386 | .0000074 | | | | | 49 | .765625 | 19.45 |
| 3 | 3/8 | 5.784 | 1.500 | 1,909,848 | .0000056 | | | | | 50 | .78125 | 19.85 |
| 3 | 5/8 | 7.23 | 1.875 | 2,387,310 | .0000044 | | | | | 51 | .796875 | 20.25 |
| 3 | 5/8 | 8.676 | 2.250 | 2,864,772 | .0000037 | | | | | 52 | .8125 | 20.64 |
| 3 1/8 | 1/8 | 6.748 | 1.750 | 2,228,156 | .0000047 | | | | | 53 | .828125 | 21.04 |
| 3 1/8 | 3/8 | 8.435 | 2.187 | 2,759,103 | .0000045 | | | | | 27 | .84375 | 21.44 |
| 3 1/8 | 3/8 | 10.122 | 2.625 | 3,342,234 | .0000032 | | | | | 55 | .859375 | 21.83 |
| 4 | 1/8 | 7.712 | 2. | 2,546,464 | .0000042 | | | | | 56 | .875 | 22.23 |
| 4 | 3/8 | 9.640 | 2.50 | 3,183,080 | .0000033 | | 7 | 14 | 28 | 57 | .890625 | 22.63 |
| 4 | 3/8 | 11.568 | 3. | 3,819,696 | .0000028 | | | | | 29 | .90625 | 23.02 |
| ... | ... | ... | ... | ... | ... | | | | | 58 | .921875 | 23.42 |
| ... | ... | ... | ... | ... | ... | | | 15 | 30 | 60 | .9375 | 23.82 |
| ... | ... | ... | ... | ... | ... | | | | | 61 | .953125 | 24.22 |
| ... | ... | ... | ... | ... | ... | | | | | 31 | .96875 | 24.61 |
| ... | ... | ... | ... | ... | ... | | | | | 62 | .984375 | 25.01 |
| ... | ... | ... | ... | ... | ... | 4 | 8 | 16 | 32 | 64 | 1.000 | 25.41 |

TABLES.

ALUMINUM.

The production of aluminum has increased so materially and its cost been so decreased that it is now being offered as a competitor of copper for electric transmission of all kinds. The electrical conductivity of copper being taken as 100, it is found that pure aluminum has a conductivity of about 63 and it is claimed that aluminum can be produced commercially having a conductivity of 60 per cent. of that of copper as usually used for electrical purposes. It is also found that for equal carrying capacities aluminum conductors will have 48 per cent. of the weight of copper.

The data herein noted is furnished in part by the Pittsburg Reduction Company.

Physical Properties of Copper and Aluminum.

| | Specific Gravity. | Electrical Conductivity. | Thermal Conductivity. Silver = 100. | Weight per Cubic Foot. | Melting Point Centigrade. |
|---------------|-------------------|--------------------------|-------------------------------------|------------------------|---------------------------|
| Copper..... | 8.9 | 100 | 73.60 | 558.12 | 1095 degrees. |
| Aluminum..... | 2.68 | 63 | 31.23 | 167.11 | 660 " |

ALUMINUM WIRE.

| SIZE. B. & S. Gauge. | WEIGHT. | | RESISTANCE AT 75° F. | |
|-------------------------|-----------------------|-----------------|----------------------|--------------|
| | Pounds per 1000 feet. | Feet per Pound. | Ohms per 1000 Feet. | Feet per Ohm |
| 0000..... | 192.86 | 5.185 | .08177 | 12229.8 |
| 000..... | 152.94 | 6.539 | .1031 | 9699. |
| 00..... | 121.28 | 8.246 | .13001 | 7692. |
| 0..... | 96.18 | 10.397 | .16385 | 6245.4 |
| 1..... | 76.29 | 13.108 | .20672 | 4637.35 |
| 2..... | 60.50 | 16.529 | .26077 | 3836.22 |
| 3..... | 47.97 | 20.846 | .32872 | 3036.12 |
| 4..... | 38.05 | 26.281 | .41448 | 2412.60 |
| 5..... | 30.17 | 33.146 | .52268 | 1913.22 |
| 6..... | 23.93 | 41.789 | .65910 | 1517.22 |
| 7..... | 18.98 | 52.687 | .83118 | 1203.12 |
| 8..... | 15.05 | 66.445 | 1.06802 | 964.18 |
| 9..... | 11.93 | 83.822 | 1.32135 | 756.78 |
| 10..... | 9.462 | 105.68 | 1.66667 | 600.00 |
| 11..... | 7.505 | 133.24 | 2.10112 | 475.908 |
| 12..... | 5.952 | 168.01 | 2.6497 | 377.412 |
| 13..... | 4.720 | 211.86 | 3.3412 | 299.298 |
| 14..... | 3.743 | 267.17 | 4.3180 | 231.582 |
| 15..... | 2.968 | 336.93 | 5.1917 | 192.612 |
| 16..... | 2.354 | 424.81 | 6.6985 | 149.286 |
| 17..... | 1.867 | 535.62 | 8.4472 | 118.380 |
| 18..... | 1.480 | 675.67 | 10.6518 | 93.882 |
| 19..... | 1.174 | 851.79 | 13.8148 | 72.384 |
| 20..... | .931 | 1074.11 | 16.938 | 59.0406 |

ALUMINUM BARS.

ALUMINUM ROUND RODS.

TABLE OF B. & S. GAUGE COPPER WIRE SHOWING SIZE OF ALUMINUM WIRE HAVING EQUAL CONDUCTIVITY.

Digitized by Google

TELEGRAPHIC CODE.

We have enlarged the scope of our telegraphic code; it will now express numbers, number in feet, amount in pounds, quantity in gross, as well as questions and answers, letters and telegrams, orders and shipments.

We request customers to use this code as much as possible, as by so doing prompt shipments can be had and numerous mistakes avoided.

For full list of trade words see trade word index immediately preceding the general index.

GENERAL CODE.

| Trade Word. | Nos. | Trade Word. | Nos. | Trade Word. | Nos. | Trade Word. | Nos. | Trade Word. | Nos. |
|-------------------|------|-------------------|------|-------------------|------|----------------------|------|--------------------|------|
| Adam | 1 | Benedght | 38 | Cecil | 75 | Charre | 112 | Chromogen | 149 |
| Abraham | 2 | Benefice | 39 | Cecily | 76 | Chary | 113 | Claude | 150 |
| Absalom | 3 | Benjamin | 40 | Cecutiency | 77 | Chart | 114 | Clement | 175 |
| Adolphus | 4 | Benne | 41 | Cedilla | 78 | Chartaceous | 115 | Conrad | 200 |
| Adrian | 5 | Bennett | 42 | Cedreue | 79 | Charter | 116 | Constantine | 250 |
| Albert | 6 | Benshee | 43 | Cedry | 80 | Charterhouse | 117 | Cornelius | 300 |
| Alexander | 7 | Bent | 44 | Celadon | 81 | Charterist | 118 | Cuthbert | 350 |
| Alfred | 8 | Bernard | 45 | Celestial | 82 | Chartism | 119 | Daniel | 400 |
| Allan | 9 | Bermouse | 46 | Celery | 83 | Chartist | 120 | David | 450 |
| Algernon | 10 | Bermicle | 47 | Celiac | 84 | Chartless | 121 | Denis | 500 |
| Ambrose | 11 | Berot | 48 | Cell | 85 | Chartographer | 122 | Donald | 600 |
| Andrew | 12 | Beroe | 49 | Celt | 86 | Chartomancy | 123 | Duncan | 700 |
| Angus | 13 | Bertram | 50 | Celtiberian | 87 | Chartometer | 124 | Ebenezer | 800 |
| Anthony | 14 | Berthing | 51 | Celtic | 88 | Christopher | 125 | Edgar | 900 |
| Archibald | 15 | Berrycold | 52 | Celtism | 89 | Christsthom | 126 | Edmond | 1000 |
| Arthur | 16 | Bescorn | 53 | Cembals | 90 | Chromate | 127 | Educated | 1100 |
| Asa | 17 | Bescree | 54 | Cemental | 91 | Chromatic | 128 | Educational | 1150 |
| Augustus | 18 | Besee | 55 | Cementer | 92 | Chromatical | 129 | Educationist | 1175 |
| Austin | 19 | Bescratch | 56 | Cenation | 93 | Chromatics | 130 | Educative | 1200 |
| Aam | 20 | Bescrall | 57 | Cenatory | 94 | Chromatin | 131 | Educator | 1225 |
| Aardrark | 21 | Beshon | 58 | Cenobitical | 95 | Chromatism | 132 | Educe | 1250 |
| Aardwolf | 22 | Beshut | 59 | Cenobitism | 96 | Chromatogenous | 133 | Eductive | 1275 |
| Aaronic | 23 | Caleb | 60 | Cense | 97 | Chromatography | 134 | Eductor | 1300 |
| Aaronicly | 24 | Calednite | 61 | Censorian | 98 | Chromatophore | 135 | Edulcoration | 1325 |
| Barnabas | 25 | Calefacient | 62 | Censual | 99 | Chromatroscope | 136 | Edulcorative | 1350 |
| Barnacle | 26 | Calefaction | 63 | Charles | 100 | Chromatosphere | 137 | Edulcorator | 1375 |
| Barnyard | 27 | Calefactive | 64 | Tufted | 101 | Chromatrope | 138 | Edulious | 1400 |
| Baroko | 28 | Calefactor | 65 | Charmer | 102 | Chromatype | 139 | Eek | 1425 |
| Barology | 29 | Calefactory | 66 | Charmful | 103 | Chrome | 140 | Eeluck | 1450 |
| Basil | 30 | Calefy | 67 | Charmel | 104 | Chromic | 141 | Eelfare | 1475 |
| Base | 31 | Calemboar | 68 | Charmless | 105 | Chromid | 142 | Edward | 1500 |
| Basic | 32 | Calendar | 69 | Charnel | 106 | Chromidrosis | 143 | Eelpot | 1525 |
| Basidium | 33 | Calendarial | 70 | Charon | 107 | Chromism | 144 | Eelpout | 1550 |
| Basin | 34 | Calendary | 71 | Charpie | 108 | Chromite | 145 | Eelspear | 1575 |
| Benedict | 35 | Calend | 72 | Chargui | 109 | Tugging | 146 | Eem | 1600 |
| Benedictory | 36 | Calendula | 73 | Charr | 110 | Chromo | 147 | Eerie | 1625 |
| Benedictus | 37 | Calenture | 74 | Charras | 111 | Chromoblast | 148 | Eery | 1650 |

TELEGRAPHIC CODE—Continued.

GENERAL CODE.

| Trade Word. | Nos. | Trade Word. | Nos. | Trade Word. | Nos. | Trade Word. | Nos. | Trade Word. | Nos. |
|------------------|------|--------------------|------|--------------|------|----------------|-------|---------------|--------|
| Eerily..... | 1675 | Effector..... | 1850 | Egbert..... | 2500 | Ezekiel..... | 7000 | George..... | 30000 |
| Eerisome..... | 1700 | Effectible..... | 1875 | Elias..... | 3000 | Ezra..... | 8000 | Gerard..... | 35000 |
| Eet..... | 1725 | Effection..... | 1900 | Elijah..... | 3500 | Ferdinand..... | 9000 | Giles..... | 40000 |
| Effable..... | 1750 | Effectirely..... | 1925 | Emile..... | 4000 | Fergus..... | 10000 | Godfrey..... | 45000 |
| Effascinate..... | 1775 | Effectireness..... | 1950 | Emanuel..... | 4500 | Tubulated..... | 15000 | Gustavus..... | 50000 |
| Effaceable..... | 1800 | Effector..... | 1975 | Enoch..... | 5000 | Frederick..... | 20000 | Guy..... | 75000 |
| Effacement..... | 1825 | Edwin..... | 2000 | Eustace..... | 6000 | Gabriel..... | 25000 | Harold..... | 100000 |

| Trade Word. | No. in Feet. | Trade Word. | No. in Feet. | Trade Word. | No. in Feet. |
|-----------------|--------------|----------------|--------------|---------------|--|
| Barbara..... | 25 feet. | Cora..... | 750 " | Eliza..... | Twice the quantity ordered in our order of |
| Beatrix..... | 50 " | Cordelia..... | 800 " | Ellen..... | Three times the quantity ordered in our order of |
| Bertha..... | 100 " | Corinne..... | 850 " | Elvira..... | Four times the quantity ordered in our order of |
| Betsey..... | 125 " | Cornelia..... | 900 " | Emmeline..... | Five times the quantity ordered in our order of |
| Blanche..... | 150 " | Cynthia..... | 950 " | Emily..... | Ten times the quantity ordered in our order of |
| Bridget..... | 200 " | Deborah..... | 1000 " | | |
| Caroline..... | 225 " | Delia..... | 1500 " | | |
| Catherine..... | 275 " | Diana..... | 2500 " | | |
| Tufaceous..... | 300 " | Dinah..... | 3500 " | | |
| Charlotte..... | 350 " | Dora..... | 4000 " | | |
| Christina..... | 400 " | Dorcas..... | 4500 " | | |
| Clara..... | 450 " | Dorinda..... | 5000 " | | |
| Clarice..... | 500 " | Dorothy..... | 6000 " | | |
| Clarissa..... | 550 " | Edith..... | 7000 " | | |
| Claudia..... | 600 " | Edna..... | 8000 " | | |
| Clementine..... | 650 " | Elinor..... | 9000 " | | |
| Constance..... | 700 " | Elizabeth..... | 10000 " | | |

| Trade Word. | Amount in Pounds. | Trade Word. | Amount in Pounds. | Trade Word. | Amount in Pounds. |
|-----------------|-------------------|----------------|--|-------------|---|
| Esther..... | 1 pound. | Geraldine..... | 10 pounds. | Helen..... | Four times the quantity ordered in our order of |
| Eugenie..... | 2 pounds. | Gertrude..... | 20 " | Huldah..... | Five times the quantity ordered in our order of |
| Eva..... | 3 " | Hannah..... | Twice the quantity ordered in our order of | Ida..... | Ten times the quantity ordered in our order of |
| Evangeline..... | 4 " | Harriet..... | Three times the quantity ordered in our order of | | |
| Eveline..... | 5 " | | | | |
| Fanny..... | 6 " | | | | |
| Flora..... | 7 " | | | | |
| Florence..... | 8 " | | | | |
| Frances..... | 9 " | | | | |

| Trade Word. | Quantity in Gross. | Trade Word. | Quantity in Gross. | Trade Word. | Quantity in Gross. |
|----------------|--------------------|----------------|--|--------------|---|
| Inez..... | 1 gross. | Judith..... | 10 gross. | Laura..... | Four times the quantity ordered in our order of |
| Irene..... | 2 " | Julia..... | 20 " | Leonora..... | Five times the quantity ordered in our order of |
| Isabel..... | 3 " | Juliet..... | Twice the quantity ordered in our order of | Lillian..... | Ten times the quantity ordered in our order of |
| Jane..... | 4 " | Katharine..... | Three times the quantity ordered in our order of | | |
| Janet..... | 5 " | | | | |
| Jemima..... | 6 " | | | | |
| Jerusha..... | 7 " | | | | |
| Joan..... | 8 " | | | | |
| Josephine..... | 9 " | | | | |

TELEGRAPHIC CODE—Continued.

QUESTIONS AND ANSWERS.

- Herbert At what price can you furnish—?
 Henry Quote us by telegraph.
 Horatio Quote us by return mail.
 Hosea Telegraph lowest price and how soon
 can ship.
 Hugh Please give quantities desired.
 Humphrey ... Cannot better quotation.
 Isaac We quote.
 Trilateral ... We quote in response to inquiry in the
 order noted by you.
 Israel We quote for immediate telegraphic
 acceptance.
 Jacob We quote in response to your inquiry of—
 James We cannot accept at the price.
 Jeremiah ... We will accept your order.
 Jeg Quote lowest price, by mail, f. o. b. Chicago
 Jen What substitution can you make?
 Jejunal Please specify quantity and Trade No.
 Jerid Unable to give better price.
 Jernoona We quote shipment from stock.
 Jeronymite ... We quote shipment in.
 Jerquing ... Have suspended work, as requested.
 Jerrybuilt ... Unable to ship goods as promised.
 Jerusalem ... Can deliver part of your order at once.
 Jess Do not understand your order. Send
 duplicate, with full details.
 Jessamine ... Will you?
 Jessant Will you accept?
 Jessed How did you address?
 Jesuitess ... Would you advise?
 Jelly Would advise you to.
 Jewish Will you agree to.
- Jewry Will you agree to conditions?
 Jewsharp ... Will you extend credit?
 Jewstone ... Have you decided?
 Jezebel Have not decided.
 Jiffy Have decided.
 Jigjog Will agree to.
 Jimcrack ... Cannot agree to.
 Jimcrow ... Shall we do so?
 Jacana Do so.
 Jacent What have you done about?
 Jacket What is freight rate per hundred lbs.?
 Jactancy ... Shall we deliver goods on verbal order of
 your Mr.?
 Jactation ... What quantity can you ship per day?
 Jaculate ... Can you furnish?
 John We will accept your order and make im-
 mediate shipment.
 Jonas We do not make the article desired.
 Jonathan ... Can you ship immediately?
 Joseph Can you ship in—?
 Joshua Have you in stock?
 Josiah Have you in stock? If not, how soon
 can you ship?
 Judah How soon can you ship?
 Lawrence ... How soon can you make first shipment
 and how fast remainder?
 Leonard ... How much can you ship at once?
 Leopold ... Can you ship at once from stock, if ad-
 vised immediately?
 Lewis Can ship at once on receipt of order.
 Trihedral ... Have large consignment on way from
 factory.

LETTERS AND TELEGRAMS.

- Luke Answer by mail.
 Malcolm Referring to our letter of—
 Marcus Referring to your letter of—
 Marmaduke ... We write you fully to-day.
 Martin We have no letter from you.
 Matthew ... Will write you fully in a day or so.
 Maurice Write, giving full particulars.
 Michael See our letter of to-day, giving full par-
 ticulars.
 Moses Answer by telegraph.
 Nathaniel ... Referring to our telegram of—
 Nicholas ... Referring to your telegram of—
 Octavius ... Telegraph by night message.
 Occasion ... Telegraph by day message.
 Oca Will greatly accommodate if you will.
 Occlude ... According to contract.
 Tulipist ... Not according to contract.
 Occuran ... To which add cost of.
 Occurse ... In addition to.
- Tulip Was addressed to.
 Ocellus Please note an advance of.
 Ocher Unless otherwise advised will assume that
 Ochrey Will agree to.
 Tuitionary ... Must have answer by.
 Octact Will be in.
 Tumor Will be here.
 Octander ... Utmost care must be used.
 Octave Cash on delivery.
 Tuning Cash in 30 days.
 Octastyle ... Will not allow you any commission.
 Octic Commission will be allowed.
 Octile Your financial standing being unknown,
 we will send goods C. O. D. unless other-
 wise instructed.
 Tumulus ... Kindly send us references as to your
 financial standing or shall we ship via
 freight with draft attached to bills of
 lading.

TELEGRAPHIC CODE—Continued.

LETTERS AND TELEGRAMS.

Octochord....Contract awarded.
 Octroi.....Contract will be awarded.
 Tunable.....The diameter is.
 Tumbler.....Will do the best we possibly can.
 Oculina.....Do the best you possibly can.
 Tumefy.....Can do nothing until.
 Odd.....Will deposit sight draft on you to-day
 unless advised to the contrary for
 dollars.
 Odize.....Please accept our draft for \$.....
 Odorine.....Send duplicate copy of invoice.
 Odye.....Have examined very carefully and find.
 Oecoid.....Express to be paid by.
 Oedema.....Do not fail to.
 Oenaoethal...Have figured as close as possible.
 Oenology....Freight must be prepaid.
 Ornomet....Freight rate per hundred pounds to
 destination.
 Oer.....Guarantee the account.
 Oestrus.....Hold subject to order.
 Off.....Does not include.
 Tuneful.....Must be included.
 Tuneless....Will keep you fully informed.
 Office.....Insist upon.
 Tungstate...Await instructions.
 Tunstenic....Advisable for you to place order at once;
 prices tending to an advance.
 Oliver.....Telegraph immediately.

Oscar.....Telegraph reply soon as possible.
 Otho.....We have no telegram from you.
 Patrick.....Why do you not telegraph?
 Paul.....Why do you not telegraph answer to
 inquiry of—
 Percy.....Can ship in—
 Peter.....Can begin shipping at once and complete
 in—
 Trilobite....Can ship immediately.
 Trilocular...Can ship immediately, may we do so?
 Trinity.....Can ship to-morrow.
 Trinket.....Can ship in two days.
 Triolet.....Can ship in three days.
 Tripartite...Can ship in four days.
 Triplet.....Can ship in five days.
 Triplicate...Can ship in six days.
 Ralph.....Can ship within one week from receipt of
 order, if advised at once.
 Randolph....Can ship within two weeks from receipt
 of order, if advised at once.
 Raphael.....Have none in stock.
 Troglodyte...Can you ship immediately? Answer by
 telegraph.
 Trolling....Can ship from stock on receipt of order.
 Trollop.....Can ship from factory on receipt of order.
 Trombone...Shall we ship by freight or express?
 Trophy.....Answer by telegraph when you will ship;
 urgent.

ORDERS AND SHIPMENTS.

Reginald....Add to our order of.
 Reuben.....Change our order of.
 Richard.....Hurry forward goods on our order of.
 Robert.....Have you shipped goods on our order?
 If not, when will you?
 Roger.....Enter order if you can ship in.
 Roland.....Hold for instructions our order of—
 Rupert.....Instructions by mail.
 Samson.....Prepay freight.
 Samuel.....Shipping instructions will be sent you.
 Seth.....Ship immediately.
 Sidney.....Ship as soon as possible.
 Silas.....Ship by express.
 Simon.....Ship by fast freight.
 Solomon....Ship quickest route.
 Stephen....Ship cheapest route.
 Theobald...Send tracer immediately for shipment of—
 Thence.....Cancel our order of—
 Theodicy....Send C. O. D. by express.
 Theorem....Do not delay.
 Theory.....Duplicate our order.

Theorica....Hold subject to our order.
 Theonical...Hold until further orders.
 Theosoph....Send us immediately.
 Theosophize..This is very important.
 Theodore...Wait receipt of letter before proceeding
 with order.
 Thomas.....First shipment will be made.
 Tommy.....If you cannot ship in time named, advise
 us by telegraph.
 Timothy....Have entered order and will ship.
 Titus.....Have sent tracer as requested.
 Toby.....Too late to cancel order.
 Valentine...We ship you to-day.
 Walter.....We expect to ship.
 Wilfred.....We will complete your order.
 William.....We will ship.
 Xebec.....We have shipped.
 Xeme.....We have completed your order.
 Xenimu.....We have entered order.
 Xenomi.....Telegraph shipping instructions for your
 order of—

TRADE WORD INDEX.

| | Page | | Page | | Page | | Page |
|------------------|------|-------------------|------|-------------------|------|------------------|------|
| Aadrark..... | 494 | Adhesive..... | 100 | Alcohol..... | 22 | Amplify..... | 126 |
| Aam..... | 494 | Adipose..... | 97 | Alcove..... | 22 | Amplify..... | 126 |
| Aardwolf..... | 494 | Adjacent..... | 98 | Alderman..... | 22 | Amputate..... | 126 |
| Aaronic..... | 494 | Adjective..... | 98 | Ale..... | 18 | Amulet..... | 126 |
| Aaronicly..... | 494 | Adjoin..... | 98 | Aleberry..... | 18 | Amusement..... | 126 |
| Abacus..... | 57 | Adjudicate..... | 101 | Alehouse..... | 18 | Amusing..... | 126 |
| Abaft..... | 57 | Adjudging..... | 98 | Alert..... | 22 | Andrew..... | 494 |
| Abandoning..... | 57 | Adjunct..... | 101 | Alertness..... | 18 | Angus..... | 494 |
| Abandonment..... | 57 | Adjunction..... | 101 | Alexander..... | 494 | Anigram..... | 126 |
| Abashed..... | 57 | Adjure..... | 101 | Alfred..... | 494 | Analogy..... | 126 |
| Abashing..... | 57 | Adjuded..... | 63 | Algebraical..... | 18 | Analyze..... | 126 |
| Abatement..... | 57 | Adjuring..... | 63 | Algernon..... | 494 | Anarchist..... | 126 |
| Abater..... | 57 | Adjust..... | 101 | Algous..... | 19 | Anarchy..... | 126 |
| Abdicate..... | 10 | Adjutage..... | 63 | Alias..... | 18 | Anatomist..... | 126 |
| Abduction..... | 10 | Adjutant..... | 101 | Alienable..... | 18 | Anatomy..... | 126 |
| Abet..... | 10 | Adjusted..... | 101 | Allan..... | 494 | Anatron..... | 126 |
| Abeyance..... | 10 | Adjustive..... | 101 | Allay..... | 21 | Ancestor..... | 126 |
| Abide..... | 10 | Adjutrix..... | 101 | Allegation..... | 21 | Ancestral..... | 126 |
| Abounds..... | 173 | Admixtion..... | 101 | Allege..... | 21 | Ancestry..... | 126 |
| Abominably..... | 57 | Admonition..... | 98 | Alleging..... | 21 | Anchor..... | 126 |
| Aboriginal..... | 57 | Admonitory..... | 98 | Alliant..... | 21 | Anchorage..... | 173 |
| About..... | 10 | Adnascent..... | 101 | Allied..... | 21 | Anthony..... | 494 |
| Abraham..... | 494 | Adolescence..... | 98 | Alligate..... | 21 | Appealed..... | 44 |
| Abridging..... | 109 | Adolphus..... | 494 | Allot..... | 21 | Appeals..... | 44 |
| Abrogating..... | 109 | Adonic..... | 101 | Allotted..... | 21 | Appear..... | 49 |
| Abalom..... | 494 | Adorable..... | 98 | Allotment..... | 21 | Apron..... | 173 |
| Absolve..... | 50 | Adoration..... | 98 | Alloy..... | 10 | Archibald..... | 494 |
| Absolver..... | 50 | Adore..... | 98 | Alloyage..... | 10 | Arthur..... | 494 |
| Absolving..... | 50 | Adoring..... | 101 | Alloyed..... | 10 | Articulate..... | 440 |
| Absonant..... | 50 | Adown..... | 98 | Alluminor..... | 10 | Articulated..... | 440 |
| Absorb..... | 49 | Adread..... | 98 | Allusive..... | 21 | Articulated..... | 440 |
| Abstract..... | 49 | Adrian..... | 494 | Allusively..... | 21 | Articulate..... | 440 |
| Absurd..... | 49 | Adriatic..... | 98 | Allusiveness..... | 21 | Artist..... | 179 |
| Abuse..... | 173 | Adrogation..... | 98 | Almond..... | 173 | Asa..... | 494 |
| According..... | 59 | Adulation..... | 51 | Alloft..... | 173 | Ascend..... | 343 |
| Accordingly..... | 59 | Adulator..... | 101 | Aloof..... | 8 | Ascending..... | 343 |
| Account..... | 59 | Adult..... | 51 | Aloud..... | 8 | Ascendant..... | 343 |
| Accountable..... | 59 | Adulterate..... | 51 | Alpha..... | 8 | Ascension..... | 343 |
| Acorn..... | 173 | Adulteration..... | 51 | Alpine..... | 8 | Ascertain..... | 343 |
| Acrobat..... | 173 | Adulteress..... | 101 | Altitude..... | 9 | Ascertained..... | 343 |
| Actor..... | 173 | Adventurer..... | 101 | Alum..... | 9 | Ascetic..... | 343 |
| Acumen..... | 94 | Adverse..... | 63 | Always..... | 9 | Ascribe..... | 343 |
| Acutely..... | 94 | Advocated..... | 30 | Amain..... | 9 | Ascribing..... | 343 |
| Adactyl..... | 94 | Affective..... | 28 | Amazon..... | 173 | Ashamed..... | 343 |
| Adam..... | 494 | Affectively..... | 28 | Ambrose..... | 494 | Ashore..... | 343 |
| Adamant..... | 94 | Affirmed..... | 28 | Ambrosia..... | 128 | Ashpan..... | 343 |
| Adamantine..... | 94 | Affiancing..... | 28 | Ambrosial..... | 128 | Assassinate..... | 175 |
| Adamic..... | 94 | Affidavit..... | 28 | Ambrosian..... | 128 | Astor..... | 179 |
| Adamites..... | 94 | Affiliated..... | 27 | Ambry..... | 128 | Attend..... | 179 |
| Adapt..... | 94 | Affiliating..... | 27 | Ambulant..... | 128 | Attendant..... | 49 |
| Adapted..... | 94 | Affright..... | 27 | Ambulate..... | 128 | Attending..... | 49 |
| Adapter..... | 94 | Affrighted..... | 27 | Ambulation..... | 128 | Attested..... | 49 |
| Adapting..... | 94 | Agreeably..... | 22 | Ambulative..... | 128 | Attester..... | 49 |
| Adaunt..... | 94 | Agreeing..... | 22 | Ambulatory..... | 128 | Attic..... | 49 |
| Add..... | 94 | Agreement..... | 22 | Ambuscade..... | 128 | Attired..... | 49 |
| Addable..... | 94 | Aground..... | 22 | Ambuscaded..... | 128 | Attiring..... | 49 |
| Adder..... | 100 | Airily..... | 22 | Ambushed..... | 128 | Attone..... | 179 |
| Addict..... | 100 | Aisle..... | 22 | Amid..... | 126 | Attract..... | 50 |
| Adding..... | 100 | Ajar..... | 22 | Amidship..... | 126 | Attractable..... | 50 |
| Addition..... | 100 | Akin..... | 22 | Amiss..... | 126 | Attrition..... | 51 |
| Additional..... | 100 | Alabaster..... | 22 | Ammunition..... | 126 | Auditory..... | 63 |
| Addle..... | 100 | Alacrity..... | 22 | Amnesty..... | 126 | Augment..... | 63 |
| Address..... | 100 | Alarm..... | 22 | Among..... | 126 | Augustus..... | 494 |
| Addresser..... | 100 | Alas..... | 22 | Amorous..... | 126 | Auk..... | 63 |
| Addressing..... | 100 | Albert..... | 494 | Amount..... | 126 | Aunt..... | 63 |
| Adduce..... | 100 | Album..... | 22 | Amounting..... | 126 | Aurora..... | 63 |
| Adhesion..... | 100 | Alchemy..... | 22 | Ample..... | 126 | Austin..... | 494 |
| | | | | | | Avow..... | 94 |

TRADE WORD INDEX—Continued.

| Page | | Page | | Page | |
|-----------------|-----|------------------|-----|------------------|-----|
| Avowable..... | 94 | Bellow..... | 132 | Bilking..... | 56 |
| Avowant..... | 94 | Belong..... | 132 | Billbook..... | 56 |
| Banjo..... | 173 | Belonging..... | 132 | Billeting..... | 56 |
| Bank..... | 173 | Below..... | 132 | Billetting..... | 56 |
| Barbara..... | 495 | Bench..... | 132 | Billett..... | 56 |
| Barber..... | 173 | Bend..... | 132 | Billiard..... | 56 |
| Bargain..... | 148 | Bended..... | 132 | Binary..... | 56 |
| Barge..... | 173 | Bender..... | 132 | Bind..... | 56 |
| Barn..... | 173 | Bending..... | 132 | Bindery..... | 56 |
| Barnabus..... | 494 | Beneath..... | 132 | Binding..... | 55 |
| Barnacle..... | 494 | Benedict..... | 494 | Blanche..... | 495 |
| Barnyard..... | 494 | Benedictine..... | 132 | Blazer..... | 55 |
| Baroko..... | 494 | Benediction..... | 132 | Bleat..... | 55 |
| Barology..... | 494 | Benedictory..... | 494 | Bleating..... | 55 |
| Base..... | 494 | Benedictus..... | 494 | Bled..... | 55 |
| Basic..... | 494 | Benedight..... | 494 | Bleek..... | 173 |
| Basiddium..... | 494 | Benefaction..... | 132 | Boast..... | 173 |
| Basil..... | 494 | Benefactor..... | 132 | Bode..... | 61 |
| Basin..... | 494 | Benefice..... | 494 | Bodice..... | 61 |
| Basket..... | 173 | Benefit..... | 132 | Bodkin..... | 61 |
| Batch..... | 173 | Benefiting..... | 132 | Body..... | 61 |
| Battle..... | 136 | Benevolent..... | 132 | Bounce..... | 179 |
| Battlement..... | 136 | Benjamin..... | 494 | Bridget..... | 495 |
| Bawled..... | 136 | Benne..... | 494 | Broad..... | 179 |
| Bawling..... | 136 | Bennett..... | 494 | Brute..... | 179 |
| Bear..... | 199 | Benshee..... | 494 | Burn..... | 179 |
| Beardless..... | 143 | Bent..... | 494 | Bust..... | 179 |
| Beating..... | 137 | Benumb..... | 132 | Cab..... | 177 |
| Beatrix..... | 495 | Benumbed..... | 132 | Cabal..... | 153 |
| Beauteous..... | 137 | Benumbing..... | 132 | Cabin..... | 153 |
| Beautify..... | 137 | Bequeath..... | 132 | Cabinet..... | 153 |
| Beautyspot..... | 137 | Bermicle..... | 494 | Cable..... | 153 |
| Beast..... | 173 | Bermouse..... | 494 | Cabman..... | 177 |
| Bedlam..... | 133 | Bernard..... | 494 | Caboose..... | 153 |
| Bedridden..... | 133 | Beroe..... | 494 | Cachle..... | 153 |
| Bedstead..... | 133 | Berot..... | 494 | Cackling..... | 153 |
| Bedtick..... | 133 | Bertha..... | 495 | Cactus..... | 153 |
| Bedtime..... | 133 | Berthing..... | 494 | Caddy..... | 153 |
| Bedimming..... | 133 | Bertram..... | 494 | Cadence..... | 158 |
| Beefeater..... | 133 | Berrycold..... | 494 | Cadet..... | 158 |
| Beefsteak..... | 133 | Bescorn..... | 494 | Cadeted..... | 191 |
| Beer..... | 173 | Bescrall..... | 494 | Cadeting..... | 153 |
| Beeswax..... | 133 | Bescratch..... | 494 | Cage..... | 158 |
| Beetle..... | 133 | Bescree..... | 494 | Caged..... | 156 |
| Befall..... | 133 | Besee..... | 494 | Cageing..... | 156 |
| Befit..... | 133 | Beshon..... | 494 | Cajole..... | 158 |
| Befogged..... | 133 | Beshot..... | 494 | Cake..... | 158 |
| Before..... | 133 | Besiege..... | 141 | Calash..... | 191 |
| Beforehand..... | 133 | Besigement..... | 141 | Calced..... | 137 |
| Behavior..... | 132 | Besieging..... | 141 | Calcinig..... | 137 |
| *BEHEAD..... | 132 | Besmoke..... | 146 | Caleb..... | 494 |
| Behead..... | 132 | Besom..... | 146 | Calednite..... | 494 |
| Beheaded..... | 132 | Besot..... | 144 | Calefacient..... | 494 |
| Beheading..... | 132 | Bespeak..... | 147 | Calefaction..... | 494 |
| Behest..... | 132 | Bespeaking..... | 147 | Calefactive..... | 494 |
| Behold..... | 132 | Bespoke..... | 147 | Calefactor..... | 494 |
| Beholden..... | 132 | Best..... | 173 | Calefactory..... | 494 |
| Beholder..... | 132 | Bestain..... | 147 | Calefy..... | 494 |
| Beholding..... | 132 | Bestir..... | 147 | Calemboar..... | 494 |
| Behoove..... | 132 | Bestow..... | 144 | Calendar..... | 494 |
| Belabors..... | 132 | Bestowing..... | 147 | Calendarial..... | 494 |
| Belch..... | 132 | Betsey..... | 495 | Calendary..... | 494 |
| Belched..... | 132 | Rigot..... | 56 | Calend..... | 494 |
| Belching..... | 132 | Bigoted..... | 56 | Calendula..... | 494 |
| Belfry..... | 132 | Bigotry..... | 56 | Calenture..... | 494 |
| Belgian..... | 132 | Bilander..... | 56 | Calf..... | 159 |
| Belie..... | 132 | Biledust..... | 55 | Calibre..... | 158 |
| Belied..... | 132 | Bilge..... | 56 | Calico..... | 158 |
| Believer..... | 28 | Bilged..... | 56 | Call..... | 158 |
| Believing..... | 28 | Bilious..... | 56 | Calling..... | 158 |
| Belike..... | 132 | Bilk..... | 56 | Callow..... | 153 |
| Belittle..... | 132 | Bilked..... | 56 | Calm..... | 152 |
| | | | | Calmed..... | 152 |
| | | | | Calmer..... | 159 |
| | | | | Calming..... | 158 |
| | | | | Calmly..... | 152 |
| | | | | Calmness..... | 152 |
| | | | | Calomel..... | 152 |
| | | | | Calonical..... | 154 |
| | | | | Caloric..... | 152 |
| | | | | Calorific..... | 159 |
| | | | | Calote..... | 158 |
| | | | | Calotype..... | 158 |
| | | | | Calumet..... | 152 |
| | | | | Calumny..... | 152 |
| | | | | Calvary..... | 159 |
| | | | | Calyx..... | 159 |
| | | | | Calx..... | 159 |
| | | | | Cam..... | 159 |
| | | | | Cambrian..... | 152 |
| | | | | Cambric..... | 152 |
| | | | | Camel..... | 155 |
| | | | | Camellia..... | 155 |
| | | | | Camelio..... | 153 |
| | | | | Cameo..... | 155 |
| | | | | Camera..... | 155 |
| | | | | Camped..... | 192 |
| | | | | Camping..... | 155 |
| | | | | Can..... | 159 |
| | | | | Canal..... | 154 |
| | | | | Canary..... | 154 |
| | | | | Cancer..... | 154 |
| | | | | Cardy..... | 154 |
| | | | | Canine..... | 154 |
| | | | | Cankery..... | 155 |
| | | | | Canned..... | 159 |
| | | | | Cannibal..... | 154 |
| | | | | Canning..... | 159 |
| | | | | Cannon..... | 154 |
| | | | | Cannonade..... | 154 |
| | | | | Canonize..... | 154 |
| | | | | Canopy..... | 154 |
| | | | | Canteen..... | 155 |
| | | | | Canter..... | 155 |
| | | | | Caper..... | 227 |
| | | | | Capered..... | 159 |
| | | | | Capering..... | 227 |
| | | | | Capital..... | 227 |
| | | | | Capitalist..... | 227 |
| | | | | Capitally..... | 227 |
| | | | | Capitation..... | 227 |
| | | | | Capitulate..... | 227 |
| | | | | Capon..... | 227 |
| | | | | Caprice..... | 227 |
| | | | | Capricious..... | 227 |
| | | | | Capsize..... | 227 |
| | | | | Capsized..... | 227 |
| | | | | Capsizing..... | 227 |
| | | | | Capstan..... | 227 |
| | | | | Capsular..... | 227 |
| | | | | Capsule..... | 227 |
| | | | | Captain..... | 227 |
| | | | | Captains..... | 227 |
| | | | | Captivate..... | 227 |
| | | | | Captivating..... | 227 |
| | | | | Captured..... | 159 |
| | | | | Carded..... | 157 |
| | | | | Cardinal..... | 150 |
| | | | | Care..... | 157 |
| | | | | Careen..... | 150 |
| | | | | Careened..... | 157 |
| | | | | Careful..... | 150 |
| | | | | Careless..... | 150 |
| | | | | Carpeted..... | 178 |

*Trade Words in capitals are duplicated. Use prefix oo only when ordering goods applying to Trade Word in capitals.

TRADE WORD INDEX—Continued.

| | Page | | Page | | Page | | Page |
|------------------|------|------------------|------|--------------------|------|---------------------|------|
| Carping..... | 342 | Cedilla..... | 494 | Charras..... | 494 | Chromatics..... | 494 |
| Carpingly..... | 342 | Ceding..... | 162 | Charre..... | 494 | Chromatin..... | 494 |
| Carpology..... | 342 | Cedreue..... | 494 | Chart..... | 494 | Chromatism..... | 494 |
| Carpus..... | 342 | Cedry..... | 494 | Chartaceous..... | 494 | Chromatogenous..... | 494 |
| Carol..... | 157 | Cedulous..... | 174 | Charter..... | 494 | Chromatography..... | 494 |
| Caroline..... | 495 | Ceiled..... | 168 | Charterhouse..... | 494 | Chromatophore..... | 494 |
| Carroll..... | 176 | Celadon..... | 494 | Charterist..... | 494 | Chromatoscope..... | 494 |
| Carriage..... | 342 | Celabacy..... | 172 | Chartism..... | 494 | Chromatosphere..... | 494 |
| Carrott..... | 342 | Celebrate..... | 162 | Chartist..... | 494 | Chromatope..... | 494 |
| Carry..... | 342 | Celebrated..... | 165 | Chartless..... | 494 | Chromatype..... | 494 |
| Carse..... | 342 | Celebrating..... | 165 | Chartographer..... | 494 | Chrome..... | 494 |
| Carted..... | 342 | Celebration..... | 161 | Chartomancy..... | 494 | Chromic..... | 494 |
| Carting..... | 178 | Celebrator..... | 157 | Chartometer..... | 494 | Chromid..... | 494 |
| Carving..... | 342 | Celestial..... | 494 | Chary..... | 494 | Chromidrosis..... | 494 |
| Cash..... | 342 | Celery..... | 494 | Cheaply..... | 184 | Chromism..... | 494 |
| Cashed..... | 160 | Celiac..... | 494 | Cheat..... | 156 | Chromite..... | 494 |
| Cashier..... | 342 | Celibate..... | 172 | Cheated..... | 156 | Chromium..... | 178 |
| Cast..... | 160 | Cell..... | 494 | Check..... | 156 | Chromo..... | 494 |
| Casted..... | 160 | Cellarer..... | 165 | Checked..... | 156 | Chromoblast..... | 494 |
| Castorsil..... | 148 | Cellarest..... | 165 | Checker..... | 184 | Chromogen..... | 494 |
| Castrating..... | 148 | Celt..... | 494 | Cheer..... | 156 | Chronograph..... | 178 |
| Castrel..... | 148 | Celtiberian..... | 494 | Cheered..... | 156 | Churned..... | 116 |
| Casual..... | 166 | Celtic..... | 494 | Cheerful..... | 184 | Claim..... | 116 |
| Casually..... | 166 | Celtism..... | 494 | Cheerfulness..... | 184 | Claimed..... | 117 |
| Casualness..... | 148 | Cembals..... | 494 | Cheerily..... | 184 | Clamped..... | 117 |
| Casuist..... | 166 | Cemental..... | 494 | Chewed..... | 156 | Clara..... | 495 |
| Casuistic..... | 148 | Cementatory..... | 164 | Chided..... | 156 | Clarice..... | 495 |
| Casuistical..... | 148 | Cementer..... | 494 | Childishly..... | 183 | Clarified..... | 227 |
| Catacomb..... | 167 | Cementing..... | 157 | Childishness..... | 183 | Clarifier..... | 227 |
| Catapult..... | 169 | Cemetery..... | 181 | Childless..... | 183 | Clarify..... | 227 |
| Catatract..... | 169 | Cenation..... | 494 | Childlike..... | 183 | Clarinet..... | 227 |
| Catarrh..... | 169 | Cenatory..... | 494 | Childly..... | 183 | Clarion..... | 227 |
| Catastrophy..... | 169 | Cenobate..... | 157 | Children..... | 183 | Clarissa..... | 495 |
| Catch..... | 169 | Cenobitical..... | 494 | Chill..... | 183 | Clash..... | 227 |
| Catching..... | 169 | Cenobitism..... | 494 | Chilled..... | 183 | Clashed..... | 176 |
| Catchpenny..... | 169 | Cenotaph..... | 181 | Chillia..... | 183 | Clashing..... | 227 |
| Catechised..... | 167 | Cense..... | 494 | Chilling..... | 183 | Class..... | 227 |
| Catechism..... | 167 | Censor..... | 181 | Chillingly..... | 183 | Classed..... | 227 |
| Categorical..... | 167 | Censorial..... | 181 | Chillness..... | 183 | Classic..... | 227 |
| Category..... | 169 | Censorian..... | 494 | Chilly..... | 183 | Classical..... | 227 |
| Catenarian..... | 168 | Censorious..... | 181 | Chime..... | 183 | Classify..... | 227 |
| Cater..... | 169 | Censual..... | 494 | Chimerical..... | 183 | Clatter..... | 227 |
| Caterer..... | 32 | Censure..... | 157 | Chin..... | 156 | Clatterer..... | 227 |
| Caterman..... | 32 | Censurably..... | 157 | Chinned..... | 117 | Claude..... | 494 |
| Caterpillar..... | 32 | Censuring..... | 157 | Chip..... | 183 | Claudia..... | 495 |
| Caterwaul..... | 32 | Cerebral..... | 433 | Chipped..... | 183 | Clause..... | 228 |
| Catfish..... | 148 | Ceres..... | 433 | Chipping..... | 183 | Clausure..... | 228 |
| Catgut..... | 32 | Cerin..... | 433 | Chirp..... | 183 | Claw..... | 181 |
| Cathartic..... | 168 | Chaffing..... | 433 | Chirped..... | 116 | Clawed..... | 228 |
| Cathartine..... | 168 | Chagrin..... | 433 | Chiseled..... | 183 | Clawing..... | 228 |
| Cathedral..... | 32 | Chain..... | 160 | Chivalrous..... | 183 | Clawless..... | 228 |
| Cath..... | 32 | Chained..... | 433 | Chivalry..... | 183 | Clay..... | 228 |
| Catherine..... | 495 | Chalk..... | 156 | Chocolate..... | 183 | Clayed..... | 228 |
| Catholical..... | 32 | Chalked..... | 156 | Choice..... | 183 | Claying..... | 228 |
| Catholicize..... | 32 | Chance..... | 156 | Choir..... | 183 | Clayish..... | 228 |
| Cause..... | 160 | Change..... | 156 | Choked..... | 164 | Claymore..... | 228 |
| Caused..... | 160 | Changed..... | 156 | Choking..... | 183 | Clean..... | 228 |
| Cave..... | 192 | Chant..... | 156 | Cholera..... | 183 | Cleaned..... | 228 |
| Caveat..... | 170 | Chanted..... | 156 | Choleric..... | 183 | Cleanly..... | 228 |
| Caved..... | 160 | Charles..... | 494 | Chopped..... | 164 | Cleanness..... | 228 |
| Cavern..... | 170 | Charlotte..... | 495 | Choose..... | 177 | Cleanse..... | 228 |
| Cavernous..... | 170 | Charm..... | 156 | Christened..... | 178 | Cleansed..... | 228 |
| Cavil..... | 170 | Charmed..... | 156 | Christening..... | 178 | Clement..... | 494 |
| Cawing..... | 166 | Charmer..... | 494 | Christian..... | 178 | Clementine..... | 495 |
| Ceasing..... | 160 | Charmful..... | 494 | Christianity..... | 178 | Clerk..... | 181 |
| Cecil..... | 494 | Charmel..... | 494 | Christianized..... | 178 | Clerked..... | 172 |
| Cecily..... | 495 | Charmless..... | 494 | Christina..... | 495 | Click..... | 181 |
| Cecutiency..... | 494 | Charnel..... | 494 | Christopher..... | 494 | Clicked..... | 181 |
| Cedar..... | 161 | Charon..... | 494 | Christathom..... | 494 | Cliff..... | 172 |
| Cedart..... | 174 | Charpie..... | 494 | Chromate..... | 494 | Climate..... | 172 |
| Cede..... | 161 | Charqui..... | 494 | Chromatic..... | 494 | Climax..... | 172 |
| Ceded..... | 161 | Charr..... | 494 | Chromatical..... | 494 | Climb..... | 172 |

TRADE WORD INDEX—Continued.

| | Page | | Page | | Page | | Page |
|-------------------|------|--------------------|------|--------------------|------|---------------------|------|
| Clinch..... | 467 | Conformist..... | 194 | Constitution..... | 200 | Cord..... | 217 |
| Clog..... | 167 | Conformity..... | 194 | Constrain..... | 200 | Cordage..... | 217 |
| Clogged..... | 173 | Confound..... | 194 | Constrainedly..... | 200 | Cordelia..... | 495 |
| Club..... | 167 | Confounded..... | 194 | Constraining..... | 200 | Cordon..... | 201 |
| Clubbed..... | 173 | Confounding..... | 194 | Constrain..... | 200 | Corrine..... | 495 |
| Coax..... | 173 | Confront..... | 194 | Constrict..... | 200 | Cornelia..... | 495 |
| Coaxed..... | 173 | Confusedness..... | 196 | Constricted..... | 200 | Cornelius..... | 494 |
| Coercion..... | 466 | Confusing..... | 196 | Constriction..... | 200 | Cornucopia..... | 216 |
| Cohesively..... | 255 | Confusion..... | 196 | Constrictive..... | 200 | Corona..... | 216 |
| Coil..... | 255 | Confutable..... | 196 | Constrictor..... | 200 | Coronal..... | 216 |
| Coiled..... | 255 | Confutation..... | 196 | Constructure..... | 200 | Coroner..... | 216 |
| Coin..... | 173 | Confute..... | 196 | Consultation..... | 203 | Corporal..... | 216 |
| Coinage..... | 255 | Confuted..... | 196 | Consulted..... | 203 | Corporally..... | 216 |
| Coincide..... | 255 | Confuting..... | 196 | Consulting..... | 203 | Corporate..... | 216 |
| Coincident..... | 255 | Congeal..... | 196 | Contabulate..... | 203 | Corporation..... | 216 |
| Coined..... | 173 | Congee..... | 196 | Contagious..... | 203 | Corpulence..... | 216 |
| Coiner..... | 255 | Congelation..... | 196 | Contagiously..... | 203 | Corpulent..... | 216 |
| Coke..... | 255 | Congener..... | 196 | Content..... | 202 | Corraline..... | 201 |
| Cold..... | 255 | Congeneric..... | 196 | Contented..... | 173 | Corrective..... | 216 |
| Combed..... | 173 | Congenial..... | 196 | Contention..... | 202 | Correctly..... | 216 |
| Commanded..... | 173 | Congenital..... | 197 | Contentious..... | 202 | Correspond..... | 216 |
| Commend..... | 169 | Congenite..... | 196 | Contentless..... | 202 | Correspondence..... | 216 |
| Compare..... | 169 | Congest..... | 197 | Contentment..... | 202 | Corruptible..... | 215 |
| Compounded..... | 168 | Congestion..... | 197 | Contents..... | 202 | Corsair..... | 215 |
| Conceal..... | 168 | Congestive..... | 217 | Conterminable..... | 202 | Cortege..... | 216 |
| Conceive..... | 29 | Conglomerate..... | 197 | Conterminous..... | 202 | Cosmetic..... | 216 |
| Conceiving..... | 29 | Conform..... | 225 | Context..... | 200 | Cossack..... | 216 |
| Conclave..... | 173 | Conjecture..... | 225 | Contexture..... | 200 | Costing..... | 216 |
| Concluded..... | 173 | Conjoin..... | 224 | Contiguous..... | 219 | Coughed..... | 176 |
| Concocted..... | 204 | Conjoint..... | 176 | Continuedly..... | 214 | Court..... | 176 |
| Concoction..... | 204 | Conjointless..... | 176 | Continuing..... | 214 | Courtship..... | 213 |
| Concoctive..... | 204 | Conjointly..... | 176 | Contraband..... | 219 | Covenant..... | 212 |
| Concomitance..... | 204 | Conjugated..... | 222 | Control..... | 173 | Covered..... | 175 |
| Concomitant..... | 204 | Conjugating..... | 222 | Controversial..... | 213 | Covertly..... | 210 |
| Concord..... | 225 | Conjunct..... | 176 | Convener..... | 218 | Coverture..... | 210 |
| Concordant..... | 204 | Conjunction..... | 176 | Convenience..... | 218 | Coveted..... | 175 |
| Concurred..... | 177 | Conjunctive..... | 176 | Convening..... | 218 | Coward..... | 194 |
| Concurrent..... | 206 | Conjurement..... | 222 | Convent..... | 218 | Cowardice..... | 194 |
| Concurring..... | 206 | Connate..... | 224 | Conversion..... | 215 | Cowardly..... | 194 |
| Condescend..... | 206 | Connation..... | 176 | Conversive..... | 215 | Crag..... | 210 |
| Condign..... | 206 | Connatural..... | 176 | Convert..... | 215 | Cramp..... | 211 |
| Condition..... | 206 | Connivance..... | 222 | Converted..... | 215 | Cramping..... | 211 |
| Condole..... | 202 | Connive..... | 222 | Converting..... | 215 | Craved..... | 218 |
| Condolement..... | 202 | Conrad..... | 494 | Convex..... | 215 | Craven..... | 218 |
| Condolence..... | 202 | Conscious..... | 222 | Convexly..... | 215 | Craving..... | 218 |
| Condoler..... | 202 | Conscript..... | 222 | Convey..... | 215 | Crawl..... | 218 |
| Conduct..... | 173 | Conscription..... | 222 | Conveyance..... | 215 | Cribbed..... | 177 |
| Conduction..... | 219 | Consecrate..... | 222 | Convict..... | 215 | Cricketer..... | 184 |
| Confab..... | 446 | Consecration..... | 222 | Convicted..... | 215 | Crier..... | 184 |
| Conferred..... | 173 | Consecrated..... | 222 | Convince..... | 210 | Crime..... | 184 |
| Confess..... | 447 | Consecutive..... | 222 | Convinced..... | 210 | Crimeful..... | 184 |
| Confessedly..... | 447 | Consenting..... | 207 | Convincing..... | 210 | Criminal..... | 184 |
| Confessing..... | 447 | Consequence..... | 207 | Cool..... | 209 | Criminate..... | 184 |
| Confessor..... | 447 | Consequently..... | 207 | Cooled..... | 209 | Criminating..... | 184 |
| Confidant..... | 447 | Conservator..... | 207 | Cooler..... | 209 | Cumber..... | 159 |
| Confide..... | 447 | Conserve..... | 207 | Cooling..... | 209 | Cuthbert..... | 494 |
| Confidence..... | 447 | Consider..... | 207 | Coolish..... | 209 | Cynthia..... | 495 |
| Confidently..... | 447 | Consideration..... | 207 | Coot..... | 201 | Daniel..... | 494 |
| Confiding..... | 447 | Console..... | 207 | Copavia..... | 201 | Danced..... | 175 |
| Confine..... | 447 | Conspirant..... | 226 | Copiant..... | 201 | Dared..... | 175 |
| Confined..... | 173 | Conspirer..... | 226 | Copist..... | 201 | Darting..... | 175 |
| Confirm..... | 447 | Constance..... | 495 | Copperish..... | 201 | Dashed..... | 175 |
| Confiscate..... | 447 | Constancy..... | 200 | Coppece..... | 201 | David..... | 494 |
| Confiscating..... | 447 | Constant..... | 200 | Copse..... | 201 | Dawned..... | 182 |
| Confiscator..... | 447 | Constantine..... | 494 | Copybook..... | 201 | Dealed..... | 175 |
| Conflict..... | 195 | Constantly..... | 200 | Coquet..... | 217 | Debate..... | 175 |
| Confluent..... | 195 | Constellation..... | 200 | Coquetry..... | 217 | Deborah..... | 495 |
| Conform..... | 195 | Consternation..... | 200 | Coquetting..... | 201 | Deem..... | 29 |
| Conformable..... | 195 | Constituent..... | 200 | Coquettish..... | 217 | Delia..... | 495 |
| Conformation..... | 195 | Constitute..... | 200 | Cora..... | 495 | Denis..... | 495 |
| Conformed..... | 194 | Constituted..... | 200 | Coral..... | 217 | Depress..... | 184 |
| Conforming..... | 194 | Constituting..... | 200 | Coralite..... | 217 | | |

TRADE WORD INDEX—Continued.

| | Page | | Page | | Page | | Page |
|------------------|------|-------------------|------|-----------------|------|--------------------|------|
| Depression..... | 184 | Difficult..... | 340 | Earl..... | 144 | Editorer..... | 300 |
| Depriving..... | 184 | Difficulty..... | 340 | Earldom..... | 296 | Editorial..... | 300 |
| Deprive..... | 184 | Diffidence..... | 340 | Earliness..... | 296 | Edmund..... | 494 |
| Depth..... | 184 | Diffident..... | 340 | Earn..... | 463 | Edna..... | 495 |
| Depute..... | 184 | Diffract..... | 344 | Earnestly..... | 296 | Educated..... | 494 |
| Deputing..... | 184 | Diffuse..... | 344 | Earth..... | 144 | Educational..... | 494 |
| Deputy..... | 184 | Diffused..... | 344 | Earthen..... | 296 | Educationist..... | 494 |
| Derange..... | 175 | Diffusing..... | 344 | Easeless..... | 296 | Educative..... | 494 |
| Deranged..... | 175 | Diffusion..... | 344 | Easterling..... | 296 | Educator..... | 494 |
| Derangement..... | 175 | Diffusive..... | 344 | Eatable..... | 296 | Educe..... | 494 |
| Derelict..... | 184 | Digest..... | 344 | Eating..... | 296 | Eductive..... | 494 |
| Deride..... | 175 | Digestible..... | 344 | Eatwell..... | 296 | Eductor..... | 494 |
| Derided..... | 175 | Digestion..... | 344 | Eavesdrop..... | 296 | Educuration..... | 494 |
| Deriding..... | 175 | Digit..... | 344 | Ebauche..... | 296 | Edulcorative..... | 494 |
| Derision..... | 175 | Digital..... | 344 | Ebarbage..... | 296 | Edulcorator..... | 494 |
| Derivation..... | 175 | Dignified..... | 344 | Ebbing..... | 296 | Edulious..... | 494 |
| Derive..... | 175 | Dignify..... | 344 | Ebenezer..... | 494 | Edwin..... | 495 |
| Derived..... | 175 | Dignitary..... | 344 | Ebeniste..... | 296 | Edward..... | 495 |
| Derogation..... | 175 | Dignity..... | 344 | Eblouir..... | 296 | Eek..... | 495 |
| Derogatory..... | 175 | Digress..... | 344 | Ebonize..... | 296 | Eeluck..... | 495 |
| Desert..... | 146 | Digression..... | 344 | Ebony..... | 144 | Eelfare..... | 495 |
| Deserted..... | 146 | Digressive..... | 344 | Ebracetate..... | 296 | Edward..... | 495 |
| Deserting..... | 146 | Dilate..... | 344 | Ebrancher..... | 296 | Eelpot..... | 495 |
| Develop..... | 341 | Dilating..... | 344 | Ebrillade..... | 296 | Eelpout..... | 495 |
| Developed..... | 341 | Dilation..... | 344 | Ebroner..... | 296 | Eelspear..... | 495 |
| Developing..... | 341 | Dilatory..... | 344 | Ebullition..... | 296 | Eem..... | 495 |
| Development..... | 341 | Dilemma..... | 344 | Ebernean..... | 296 | Eerie..... | 495 |
| Deviate..... | 341 | Diligence..... | 344 | Eacher..... | 296 | Eery..... | 495 |
| Deviating..... | 341 | Diligent..... | 344 | Ecaille..... | 296 | Eerily..... | 495 |
| Device..... | 341 | Dilute..... | 344 | Ecarteler..... | 296 | Eerisome..... | 495 |
| Devisible..... | 341 | Diluted..... | 344 | Ecbatic..... | 296 | Eet..... | 495 |
| Devised..... | 341 | Diluting..... | 344 | Eccentric..... | 296 | Effable..... | 495 |
| Devising..... | 30 | Dimension..... | 344 | Ecclesiast..... | 296 | Effascinate..... | 495 |
| Devolve..... | 341 | Diminish..... | 344 | Ecervele..... | 296 | Effaceable..... | 495 |
| Devote..... | 341 | Diphthong..... | 341 | Echafaud..... | 296 | Effacement..... | 495 |
| Devoted..... | 341 | Diploma..... | 341 | Echappade..... | 296 | Effector..... | 495 |
| Devotion..... | 341 | Diplomacy..... | 341 | Echelon..... | 297 | Effectible..... | 495 |
| Devour..... | 341 | Diplomatic..... | 341 | Echevean..... | 296 | Effection..... | 495 |
| Devout..... | 341 | Dipper..... | 341 | Echinate..... | 297 | Effectirely..... | 495 |
| Devoutly..... | 341 | Dipping..... | 341 | Echinidau..... | 297 | Effectireness..... | 495 |
| Dew..... | 341 | Directed..... | 341 | Echo..... | 144 | Effector..... | 495 |
| Dewey..... | 341 | Directing..... | 341 | Echoing..... | 297 | Effervesce..... | 300 |
| Dexter..... | 341 | Direction..... | 341 | Echometry..... | 297 | Effluence..... | 300 |
| Dexterity..... | 341 | Directly..... | 341 | Eclair..... | 297 | Effluvium..... | 300 |
| Dexterious..... | 341 | Director..... | 341 | Eclairage..... | 297 | Effrayment..... | 300 |
| Diadem..... | 341 | Directory..... | 341 | Eclampsy..... | 297 | Effusively..... | 300 |
| Diagonal..... | 341 | Dirge..... | 341 | Eclat..... | 297 | Egalement..... | 300 |
| Diagram..... | 341 | Dirk..... | 341 | Eclectic..... | 297 | Egalite..... | 300 |
| Dialect..... | 341 | Dirked..... | 341 | Eclipse..... | 297 | Egbert..... | 495 |
| Dialogue..... | 341 | Dirking..... | 341 | Eclipsing..... | 297 | Egeran..... | 300 |
| Diameter..... | 341 | Discerning..... | 290 | Ecliptique..... | 297 | Eglantine..... | 300 |
| Diamond..... | 341 | Discerningly..... | 290 | Eclogue..... | 297 | Egoteze..... | 300 |
| Diana..... | 495 | Discernment..... | 290 | Ecolier..... | 297 | Egreffe..... | 300 |
| Diary..... | 341 | Discharge..... | 287 | Economist..... | 297 | Egrenage..... | 300 |
| Diatribes..... | 341 | Di-charged..... | 287 | Ecorcer..... | 297 | Egregious..... | 300 |
| Dice..... | 340 | Discharging..... | 287 | Ecosseur..... | 297 | Eider..... | 300 |
| Dickey..... | 340 | Dischmet..... | 287 | Ecremer..... | 297 | Eidograph..... | 300 |
| Dictate..... | 340 | Disclose..... | 290 | Ecrevisse..... | 297 | Ejaculate..... | 300 |
| Dictation..... | 340 | Disclosed..... | 290 | Ecritan..... | 297 | Ejectment..... | 379 |
| Dictator..... | 340 | Discolor..... | 290 | Ecstatical..... | 297 | Elaidic..... | 300 |
| Diction..... | 340 | Discolored..... | 290 | Ectypal..... | 300 | Elancement..... | 300 |
| Dictionary..... | 340 | Discoloring..... | 290 | Ecumage..... | 300 | Eland..... | 300 |
| Dictum..... | 340 | Dinah..... | 495 | Ecumenical..... | 300 | Elaterum..... | 300 |
| Didactic..... | 340 | Donald..... | 494 | Ecurie..... | 300 | Elctary..... | 300 |
| Didactical..... | 340 | Dora..... | 495 | Edacity..... | 300 | Electorate..... | 300 |
| Didapper..... | 340 | Dorcaš..... | 495 | Edenized..... | 300 | Electrical..... | 300 |
| Diet..... | 340 | Dorinda..... | 495 | Edentalous..... | 300 | Electro..... | 300 |
| Dietary..... | 340 | Dorothy..... | 495 | Edgar..... | 494 | Elegance..... | 300 |
| Dietine..... | 340 | Duncan..... | 494 | Edgemark..... | 300 | Elegist..... | 300 |
| Differ..... | 340 | Each..... | 476 | Edict..... | 300 | Elegy..... | 300 |
| Differed..... | 340 | Eagerly..... | 296 | Edificant..... | 300 | Element..... | 300 |
| Difference..... | 340 | Ear..... | 465 | Edith..... | 495 | Elementary..... | 300 |

TRADE WORD INDEX—Continued.

| | Page | | Page | | Page | | Page |
|-----------------|------|------------------|------|-------------------|------|------------------|------|
| Elephant..... | 300 | Emigration..... | 230 | Enamored..... | 362 | Enthronment..... | 384 |
| Elevate..... | 300 | Emile..... | 495 | Enamoring..... | 362 | Enthusiasm..... | 384 |
| Elevation..... | 300 | Emiline..... | 495 | Encage..... | 362 | Enthusiast..... | 384 |
| Elias..... | 495 | Emily..... | 495 | Encaged..... | 362 | Entice..... | 384 |
| Elicit..... | 300 | Eminence..... | 301 | Encaging..... | 362 | Enticement..... | 384 |
| Elicitate..... | 300 | Emissary..... | 230 | Encamp..... | 362 | Entirety..... | 301 |
| Eligible..... | 300 | Emission..... | 230 | Encardion..... | 301 | Entity..... | 301 |
| Elijah..... | 495 | Emittent..... | 301 | Encarpus..... | 301 | Entoil..... | 385 |
| Eliminate..... | 355 | Emmenager..... | 301 | Encaustic..... | 301 | Entoiling..... | 301 |
| Elinor..... | 495 | Emollient..... | 301 | Encave..... | 301 | Entrails..... | 301 |
| Elision..... | 300 | Emolument..... | 301 | Encensoir..... | 301 | Entreaty..... | 301 |
| Elite..... | 355 | Emouvoir..... | 301 | Enchain..... | 355 | Entrepot..... | 301 |
| Elixer..... | 355 | Emotion..... | 346 | Enchained..... | 355 | Entretiens..... | 301 |
| Eliza..... | 495 | Emotional..... | 346 | Enchaining..... | 355 | Entretien..... | 301 |
| Elizabeth..... | 495 | Emotive..... | 346 | Enchainment..... | 355 | Entrevue..... | 301 |
| Elk..... | 355 | Empale..... | 347 | Enclitic..... | 301 | Enumerate..... | 301 |
| Elleborine..... | 300 | Empaled..... | 347 | Enclosure..... | 301 | Enveigle..... | 301 |
| Ellen..... | 495 | Empalement..... | 348 | Enclumeau..... | 301 | Envelop..... | 302 |
| Elliptic..... | 355 | Empaling..... | 348 | Encomium..... | 301 | Envenom..... | 302 |
| Elm..... | 346 | Empanel..... | 348 | Encrier..... | 301 | Envious..... | 302 |
| Elocution..... | 300 | Empasm..... | 301 | Encrinite..... | 301 | Environ..... | 302 |
| Elongate..... | 347 | Empassion..... | 348 | Encrust..... | 301 | Envisager..... | 302 |
| Elongation..... | 300 | Empêcher..... | 301 | Encumbrance..... | 363 | Envoy..... | 302 |
| Elopement..... | 347 | Emperor..... | 348 | Encyclical..... | 363 | Envying..... | 302 |
| Eloquence..... | 346 | Emphasis..... | 348 | Endamage..... | 363 | Epagon..... | 302 |
| Eloquent..... | 346 | Emphasize..... | 348 | Endamagement..... | 363 | Epancher..... | 302 |
| Eloquently..... | 300 | Emphasizing..... | 348 | Endanger..... | 363 | Epaulet..... | 302 |
| Else..... | 346 | Empire..... | 349 | Endear..... | 363 | Epeceidian..... | 302 |
| Elsewhere..... | 346 | Empiric..... | 349 | Endearing..... | 363 | Epenthesis..... | 302 |
| Elucidate..... | 300 | Empirical..... | 349 | Endearment..... | 363 | Epergne..... | 302 |
| Elude..... | 347 | Emplead..... | 301 | Endeavor..... | 363 | Eperon..... | 302 |
| Eluding..... | 300 | Employable..... | 349 | Endeavoring..... | 363 | Ephemeris..... | 302 |
| Elvan..... | 300 | Employer..... | 349 | Endemical..... | 301 | Epicure..... | 463 |
| Elvira..... | 495 | Employing..... | 349 | Endicter..... | 301 | Epidemic..... | 463 |
| Elysian..... | 300 | Empoison..... | 349 | Endive..... | 301 | Epidermis..... | 302 |
| Elytron..... | 300 | Empoisoned..... | 349 | Endless..... | 363 | Epidictic..... | 302 |
| Emaciate..... | 347 | Empoisoning..... | 349 | Endlessness..... | 363 | Epigastric..... | 302 |
| Emaciated..... | 384 | Emporetic..... | 301 | Endmost..... | 301 | Epiglottic..... | 302 |
| Emanuel..... | 495 | Emporium..... | 349 | Endormir..... | 301 | Epigynous..... | 302 |
| Emballage..... | 300 | Empower..... | 349 | Endorse..... | 301 | Epileptic..... | 302 |
| Embalm..... | 300 | Empowering..... | 351 | Endow..... | 363 | Epilogism..... | 302 |
| Embander..... | 300 | Empress..... | 351 | Endower..... | 363 | Epilogue..... | 302 |
| Embank..... | 300 | Emprunt..... | 301 | Endowing..... | 363 | Epincion..... | 302 |
| Embankment..... | 300 | Emptied..... | 351 | Endowment..... | 363 | Epiploce..... | 302 |
| Embarrass..... | 300 | Emptiness..... | 351 | Endroit..... | 301 | Episcopal..... | 302 |
| Embaumer..... | 300 | Empty..... | 351 | Endurance..... | 363 | Episode..... | 302 |
| Emblavure..... | 301 | Emptying..... | 351 | Engesire..... | 301 | Epistle..... | 302 |
| Emblaze..... | 301 | Empurple..... | 351 | Enfant..... | 301 | Epistolary..... | 302 |
| Emblazonry..... | 301 | Empurpling..... | 351 | Enflade..... | 301 | Epitaph..... | 302 |
| Emblem..... | 301 | Empyema..... | 301 | Enfold..... | 301 | Epitasis..... | 302 |
| Emblematic..... | 301 | Empyrean..... | 301 | Enfoldment..... | 301 | Epithet..... | 302 |
| Emboiter..... | 301 | Emulate..... | 350 | Enforcer..... | 301 | Epitomist..... | 302 |
| Embolus..... | 301 | Emulating..... | 350 | Englouter..... | 301 | Epoch..... | 302 |
| Embonpoint..... | 301 | Emulation..... | 350 | Engrafted..... | 301 | Eponvante..... | 302 |
| Emboss..... | 301 | Emulator..... | 350 | Engrasp..... | 301 | Equability..... | 302 |
| Embossed..... | 465 | Emulgent..... | 350 | Engraver..... | 301 | Equaling..... | 453 |
| Embottling..... | 415 | Emulous..... | 301 | Enhydrite..... | 301 | Equator..... | 453 |
| Emboucher..... | 301 | Emulously..... | 301 | Enlaid..... | 301 | Equipage..... | 302 |
| Embow..... | 415 | Emulsion..... | 350 | Enlarge..... | 301 | Equipment..... | 302 |
| Embrace..... | 301 | Emulsive..... | 350 | Enneatic..... | 301 | Equipoi-e..... | 302 |
| Embrute..... | 301 | Enable..... | 350 | Ennunciate..... | 301 | Eraflure..... | 302 |
| Embrocate..... | 301 | Enabling..... | 350 | Enoch..... | 495 | Erased..... | 456 |
| Embroider..... | 230 | Enact..... | 350 | Enraptured..... | 301 | Erasement..... | 456 |
| Embroid..... | 385 | Enacted..... | 350 | Enriching..... | 380 | Erective..... | 303 |
| Embryo..... | 385 | Enacting..... | 350 | Enrichment..... | 380 | Ergot..... | 303 |
| Emerald..... | 301 | Enactive..... | 361 | Enring..... | 380 | Erotical..... | 303 |
| Emerging..... | 230 | Enactment..... | 361 | Enseconce..... | 301 | Erroneous..... | 303 |
| Emerson..... | 230 | Enactor..... | 361 | Entelechy..... | 301 | Eructate..... | 303 |
| Emetical..... | 301 | Enamel..... | 361 | Enthral..... | 301 | Erudition..... | 303 |
| Emetine..... | 301 | Enameled..... | 361 | Enthrone..... | 384 | Eruginous..... | 303 |
| Emication..... | 301 | Enameling..... | 361 | Enthroned..... | 384 | Eruption..... | 455 |
| Emigrate..... | 230 | Enamor..... | 362 | Enthroning..... | 384 | Eruptive..... | 455 |

TRADE WORD INDEX—Continued.

| | Page | | Page | | Page | | Page |
|------------|------|-------------|------|--------------|------|-------------|------|
| Erysipelas | 303 | Executive | 448 | Extinction | 307 | Familiar | 445 |
| Escabeau | 303 | Executory | 448 | Extirp | 45 | Familiarize | 424 |
| Escamote | 303 | Executioner | 448 | Extirpate | 45 | Familiarly | 424 |
| Escargot | 303 | Exemplar | 305 | Extirpated | 45 | Family | 424 |
| Eschalot | 303 | Exemplary | 449 | Extol | 307 | Famine | 424 |
| Eschewer | 303 | Exemption | 305 | Ezekiel | 495 | Famish | 424 |
| Escobar | 303 | Exhaustment | 449 | Ezra | 495 | Famous | 424 |
| Escopette | 303 | Exhilarated | 449 | Faber | 187 | Famously | 424 |
| Esculent | 303 | Exhort | 449 | Fable | 389 | Fan | 424 |
| Esoterics | 303 | Exiccate | 305 | Fabric | 393 | Fanatic | 424 |
| Espadon | 303 | Exigency | 305 | Fabricate | 393 | Fanatical | 424 |
| Espalier | 303 | Exigent | 452 | Fabrication | 393 | Fanaticism | 424 |
| Esperance | 303 | Exigenter | 452 | Fabricator | 393 | Fancier | 424 |
| Espionage | 303 | Exigible | 452 | Fabulist | 393 | Fanciful | 425 |
| Esplanade | 303 | Exiguous | 452 | Face | 187 | Fancy | 30 |
| Essanger | 303 | Exiled | 462 | Facilitate | 406 | Fandango | 425 |
| Essartage | 304 | Exilement | 462 | Facility | 406 | Fane | 423 |
| Essay | 456 | Exiling | 462 | Facing | 406 | Fang | 423 |
| Essayed | 456 | Exilition | 452 | Facsimile | 406 | Fanlight | 423 |
| Essaying | 456 | Exility | 452 | Fact | 187 | Fanny | 495 |
| Essayist | 304 | Exit | 463 | Factatem | 409 | Fanpalm | 423 |
| Essentiate | 304 | Existing | 463 | Faction | 407 | Fantasm | 423 |
| Estatette | 304 | Exorbitant | 305 | Factionist | 407 | Fantastic | 423 |
| Ester | 495 | Expect | 464 | Factionous | 406 | Fantastical | 423 |
| Estrapade | 304 | Expede | 305 | Factitious | 407 | Fantasy | 423 |
| Estray | 457 | Expence | 306 | Factor | 409 | Fur | 423 |
| Estrella | 304 | Expeditely | 305 | Factorage | 409 | Farce | 416 |
| Estuary | 304 | Expedition | 306 | Factory | 409 | Farcial | 416 |
| Esurgent | 304 | Expeditive | 306 | Faculty | 409 | Fare | 416 |
| Etch | 457 | Expel | 306 | Fade | 187 | Farm | 185 |
| Ethereal | 304 | Expellent | 306 | Fadeless | 410 | Farmer | 416 |
| Ethical | 304 | Expenditor | 306 | Fag | 187 | Farming | 416 |
| Ethiopian | 304 | Experience | 306 | Fagot | 411 | Faro | 416 |
| Ethnology | 304 | Experiment | 306 | Fail | 283 | Farrago | 416 |
| Etoile | 304 | Expert | 306 | Failed | 411 | Farrier | 416 |
| Etudiant | 304 | Expertness | 306 | Failing | 411 | Farrow | 417 |
| Etymology | 304 | Expetible | 306 | Failure | 411 | Farther | 417 |
| Eucharist | 304 | Expiated | 306 | Fain | 411 | Farthest | 417 |
| Euclid | 304 | Expiation | 306 | Faintly | 411 | Farthing | 417 |
| Eugene | 495 | Expiatory | 306 | Faintness | 412 | Fascile | 416 |
| Eulogistic | 304 | Expirable | 306 | Faints | 412 | Fascinate | 416 |
| Eulogium | 305 | Expirant | 306 | Fair | 412 | Fascination | 416 |
| Eulogized | 305 | Expiscate | 306 | Fairest | 412 | Fascine | 416 |
| Euphonic | 305 | Explainer | 306 | Fairly | 412 | Fashion | 416 |
| Euphorbia | 305 | Expletive | 306 | Fairness | 412 | Fast | 185 |
| Eustace | 495 | Explicable | 306 | Faith | 187 | Fatal | 438 |
| Eva | 495 | Explicator | 306 | Faithful | 412 | Fatalism | 438 |
| Evagation | 305 | Explicitly | 306 | Faithfulness | 414 | Fatalist | 438 |
| Evangelic | 457 | Explode | 306 | Faithless | 414 | Fatality | 438 |
| Evangeline | 495 | Exploit | 306 | Fakir | 414 | Fate | 144 |
| Evanescent | 305 | Explore | 306 | Falcate | 414 | Fatably | 439 |
| Evaporate | 457 | Exponent | 306 | Falcated | 414 | Father | 439 |
| Evaporated | 457 | Exposed | 306 | Falcon | 414 | Fathom | 439 |
| Eveline | 495 | Exposition | 306 | Falconer | 414 | Fathomable | 439 |
| Evensong | 305 | Exposure | 306 | Falconry | 414 | Fathomless | 439 |
| Eventide | 305 | Expounded | 306 | Fall | 185 | Fatigue | 439 |
| Eildoer | 305 | Express | 464 | Fallability | 414 | Fatigued | 439 |
| Evincible | 305 | Expressed | 464 | Fallacion | 414 | Fatiguing | 439 |
| Eviscerate | 305 | Expressly | 464 | Fallacy | 414 | Fatness | 439 |
| Evolution | 305 | Expulse | 464 | Fallen | 414 | Fatted | 438 |
| Ewe | 305 | Expunger | 306 | Fallible | 414 | Fatten | 439 |
| Exact | 452 | Exsiccant | 306 | Falling | 414 | Fatter | 438 |
| Exacted | 452 | Extempore | 306 | Fallow | 414 | Fattest | 438 |
| Exactly | 452 | Extending | 307 | False | 185 | Fattiness | 439 |
| Exactness | 452 | Extensile | 307 | Falsely | 421 | Fatty | 439 |
| Exaltive | 305 | Extensor | 307 | Falseness | 421 | Fatting | 438 |
| Excalceate | 305 | Extent | 459 | Falsetto | 421 | Fatuity | 439 |
| Excarnate | 305 | Extenuate | 460 | Falsifier | 421 | Fatuous | 439 |
| Excelsior | 305 | Exterior | 459 | Falsify | 421 | Fauborg | 439 |
| Excisable | 305 | Exterminate | 307 | Falsity | 445 | Faucet | 439 |
| Excusatory | 305 | External | 459 | Falter | 445 | Fault | 185 |
| Execrable | 305 | Extinct | 307 | Fame | 185 | Faultless | 439 |

TRADE WORD INDEX—Continued.

| | Page | | Page | | Page | | Page |
|-----------------|------|-----------------|------|---------------|------|----------------|------|
| Faulty... | 442 | Fennel... | 237 | Fieldpiece... | 238 | Finish... | 283 |
| *FAVOR... | 185 | Fenny... | 237 | Fiend... | 238 | Finished... | 234 |
| Favor... | 283 | Feoff... | 237 | Fiendish... | 238 | Finishing... | 234 |
| Favorable... | 446 | Ferdinand... | 495 | Fierce... | 238 | Finishes... | 234 |
| Favored... | 442 | Fergus... | 495 | Fiercely... | 238 | Finite... | 234 |
| Favoring... | 442 | Ferial... | 237 | Fierceness... | 238 | Finitely... | 234 |
| Favorite... | 446 | Ferine... | 237 | Fiery... | 238 | Finny... | 234 |
| Favoritism... | 446 | Ferment... | 237 | Fife... | 238 | Fintoed... | 234 |
| Fawn... | 446 | Fern... | 237 | Fifer... | 238 | Fire... | 234 |
| Fay... | 446 | Ferocious... | 237 | *FIGHT... | 185 | Firearm... | 234 |
| Fealty... | 447 | Ferocity... | 237 | Fight... | 238 | Fireboard... | 234 |
| Fear... | 447 | Ferreous... | 237 | Fighter... | 238 | Firebrand... | 234 |
| Feared... | 447 | Ferret... | 237 | Fighting... | 238 | Firedamp... | 234 |
| Fearing... | 447 | Ferriage... | 237 | Figment... | 238 | Fireeater... | 234 |
| Fearful... | 447 | Ferrottype... | 237 | Figurable... | 238 | Firefly... | 234 |
| Fearfully... | 447 | Ferruginous... | 237 | Figurate... | 238 | Firelock... | 234 |
| Fearfulness... | 447 | Ferrule... | 237 | Figuration... | 238 | Fireman... | 234 |
| Fearless... | 451 | Ferry... | 237 | Figurative... | 238 | Firenew... | 234 |
| Fearlessly... | 451 | Fertile... | 237 | Figure... | 238 | Fireplace... | 234 |
| Fearlessness... | 451 | Fertility... | 237 | Filaceous... | 238 | Fireproof... | 234 |
| Fearnaught... | 451 | Fertilize... | 237 | Filament... | 238 | Fireship... | 234 |
| Feasibility... | 451 | Ferule... | 237 | Filature... | 238 | Fireside... | 234 |
| Feasibleness... | 451 | Fervency... | 237 | Filbert... | 238 | Firewood... | 234 |
| *FEAST... | 185 | Fervent... | 237 | Filch... | 238 | Firkin... | 235 |
| Feast... | 283 | Fervently... | 237 | Filching... | 238 | Firm... | 235 |
| Feat... | 451 | Fervid... | 237 | File... | 238 | Firmament... | 235 |
| Feather... | 451 | *FERVOR... | 185 | Filed... | 238 | Firmamental... | 235 |
| Feathered... | 451 | Fervor... | 237 | Filial... | 238 | Firmly... | 235 |
| Feathering... | 453 | Fescue... | 237 | Filing... | 238 | Firmness... | 235 |
| Feature... | 453 | *FESTAL... | 237 | Filiation... | 238 | Firmling... | 235 |
| Febrific... | 453 | Festal... | 237 | Filibuster... | 238 | Firstly... | 235 |
| Federate... | 454 | Fester... | 237 | Filiform... | 238 | Firstrate... | 235 |
| Federation... | 454 | Festive... | 237 | Filgree... | 238 | Fiscal... | 235 |
| Fee... | 457 | Festivity... | 237 | Fill... | 238 | *FISH... | 235 |
| Feeable... | 458 | Festoon... | 237 | Filled... | 238 | Fish... | 283 |
| Feebleness... | 237 | *FETCH... | 237 | Fillet... | 238 | Fished... | 235 |
| Feebly... | 237 | Fetch... | 283 | Filibeg... | 238 | Fishing... | 237 |
| Feed... | 237 | Fete... | 237 | Filling... | 238 | Fisher... | 235 |
| Feeder... | 237 | Fetid... | 237 | Filly... | 238 | Fisherman... | 235 |
| Feeding... | 237 | Fetish... | 237 | Film... | 238 | Fishery... | 235 |
| Feel... | 237 | Fetishism... | 237 | Filmy... | 238 | Fishhook... | 235 |
| Feeler... | 237 | Fetor... | 238 | Filose... | 238 | Fishiness... | 235 |
| Feeling... | 237 | Fetter... | 238 | Filter... | 238 | Fishmonger... | 235 |
| Feelingly... | 237 | Fetlock... | 237 | Filth... | 238 | Fishy... | 235 |
| Feet... | 237 | Fetus... | 238 | Filthily... | 234 | Fissile... | 235 |
| Feign... | 283 | Feud... | 238 | Filthiness... | 234 | Fissility... | 235 |
| Feint... | 237 | Feudal... | 238 | Filthy... | 234 | Fission... | 235 |
| Feinting... | 237 | Feudalism... | 238 | Filtrate... | 234 | Fissure... | 235 |
| Feldspar... | 237 | Feudality... | 238 | Filtration... | 234 | *FIST... | 235 |
| Felicitate... | 237 | Feudatory... | 238 | Fimbricate... | 234 | Fist... | 187 |
| Felicitous... | 237 | Fever... | 238 | Fin... | 234 | Fistic... | 235 |
| Felicity... | 237 | Feverish... | 238 | Finable... | 234 | Fistcuffs... | 235 |
| Feline... | 237 | Feverishness... | 238 | Final... | 234 | Fistula... | 235 |
| Fell... | 283 | Few... | 238 | Finally... | 234 | Fistular... | 235 |
| Fellow... | 237 | Fewness... | 238 | Finance... | 234 | Fistulate... | 235 |
| Fellowship... | 237 | Fez... | 238 | Financial... | 234 | Fistulous... | 235 |
| Felly... | 237 | Fiat... | 238 | Financier... | 234 | Fit... | 235 |
| Felodese... | 237 | Fib... | 238 | Finch... | 234 | Fitch... | 235 |
| Felon... | 237 | Fibre... | 238 | *FIND... | 234 | Fitful... | 235 |
| Felonious... | 237 | Fibril... | 238 | Find... | 187 | Fitly... | 235 |
| Felony... | 237 | Fibrine... | 238 | Finder... | 234 | Fitness... | 235 |
| Felt... | 237 | Fibrous... | 238 | Finding... | 234 | Fitted... | 235 |
| Female... | 237 | Pickle... | 238 | Fine... | 234 | *FITTING... | 235 |
| Feminine... | 237 | Fickleness... | 238 | Fined... | 234 | Fitting... | 235 |
| Femoral... | 237 | Fiction... | 238 | Fining... | 234 | *FIX... | 236 |
| Fence... | 237 | Fictitious... | 238 | Finely... | 234 | Fix... | 283 |
| Fencible... | 237 | Fiddle... | 238 | Fineness... | 234 | Fixable... | 235 |
| Fencing... | 237 | Fidelity... | 238 | Finery... | 234 | Fixation... | 235 |
| Fend... | 237 | Fidget... | 238 | Finesse... | 234 | Fixed... | 235 |
| Fender... | 237 | Fie... | 238 | Finger... | 234 | Fixedness... | 235 |
| Fending... | 237 | Field... | 238 | *FINISH... | 234 | Fixing... | 235 |

*Trade Words in capitals are duplicated. Use prefix eo only when ordering goods applying to Trade Word in capitals

TRADE WORD INDEX—Continued.

| | Page | | Page | | Page | | Page |
|------------------|------|-------------------|------|-------------------|------|-------------------|------|
| Fixity | 235 | Flaxy | 79 | Flown | 284 | Folio | 239 |
| Fizzle | 235 | Flay | 79 | Flows | 283 | Follicle | 239 |
| Flabbiness | 235 | Flea | 79 | Fluctuate | 284 | Follow | 239 |
| Flabby | 236 | Fleck | 80 | Fluctuated | 284 | Followed | 239 |
| Flacid | 236 | Fled | 80 | Fluctuating | 284 | Follower | 239 |
| Flacidness | 236 | Fleece | 80 | Fluctuation | 284 | Following | 239 |
| *FLAG | 235 | Fleecer | 80 | Flue | 284 | Folly | 239 |
| Flag | 187 | Fleecy | 80 | Fluency | 284 | Foment | 239 |
| Flagellate | 236 | Fleeing | 80 | Fluent | 284 | Fomentation | 239 |
| Flageolet | 236 | Fleer | 80 | Fluid | 284 | Fomented | 239 |
| Flagging | 236 | Fleet | 80 | Fluidity | 284 | Fomenter | 239 |
| Flaggy | 236 | Fleeted | 81 | Flume | 284 | Fomenting | 239 |
| Flagitious | 236 | Fleetest | 81 | Flung | 284 | Fond | 239 |
| Flagon | 236 | Fleeting | 81 | Flunky | 284 | Fondle | 239 |
| Flagrancy | 236 | Fleetly | 81 | Fluor | 284 | Fondled | 239 |
| Flagrant | 236 | Fleetness | 81 | Fluoric | 284 | Fondling | 239 |
| Flagrantly | 236 | Flesh | 82 | Fluorine | 284 | Fondly | 239 |
| Flagship | 236 | Fleshiness | 82 | Flurry | 284 | Fondness | 239 |
| Flagstaff | 236 | Fleshly | 82 | Flurried | 284 | Font | 239 |
| Flagstone | 236 | Flew | 82 | Flurring | 284 | Fontal | 239 |
| Flail | 236 | Flexibility | 82 | Flush | 284 | *FOOD | 239 |
| Flake | 236 | Flexion | 93 | Flushed | 284 | Food | 187 |
| Flaker | 236 | Flexious | 93 | Flushing | 284 | Foolery | 239 |
| Flaking | 236 | Flexure | 93 | Flusted | 284 | Foolish | 239 |
| Flaky | 236 | Flicker | 93 | Flustered | 101 | Foolishly | 239 |
| Flambeau | 236 | Flight | 93 | Flustering | 111 | Foolishness | 239 |
| Flame | 236 | Flightiness | 93 | Flute | 111 | Foolsap | 239 |
| Flamingo | 236 | Flighty | 93 | Fluted | 111 | Foot | 239 |
| Flamy | 236 | Flimsy | 93 | Fluting | 111 | Football | 239 |
| Flange | 236 | Fling | 93 | Flutest | 108 | Footboy | 239 |
| Flank | 236 | Flint | 187 | Flutter | 153 | Footbridge | 239 |
| Flanked | 236 | Flinty | 93 | Fluttering | 153 | Foothold | 239 |
| Flanking | 236 | Flip | 93 | Fluviate | 153 | Footing | 289 |
| Flannel | 236 | Flippancy | 93 | Fluviatic | 153 | Footlight | 239 |
| *FLAP | 236 | Flippant | 93 | Fluxion | 155 | Footman | 239 |
| Flap | 187 | Flirt | 187 | Fluxional | 155 | Footnote | 239 |
| Flapped | 236 | Flirtation | 284 | *FLY | 157 | Footpad | 239 |
| Flapping | 236 | Flirted | 284 | Fly | 157 | Footprint | 239 |
| Flapjack | 236 | Flirting | 284 | Flyer | 157 | Footstep | 239 |
| Flare | 236 | *FLOAT | 187 | Flying | 157 | Footstool | 239 |
| *FLASH | 236 | Float | 283 | Flyleaf | 157 | Fopperv | 239 |
| Flash | 283 | Floatage | 284 | Flywheel | 157 | Foppish | 239 |
| Flashed | 236 | Flock | 284 | Foal | 157 | Forage | 239 |
| Flashing | 236 | Floe | 284 | Foam | 157 | Foraged | 239 |
| Flashy | 236 | Flog | 284 | Foamed | 68 | Forager | 239 |
| Flask | 236 | *FLOP | 187 | Foaming | 68 | Foraging | 239 |
| *FLAT | 236 | Flop | 284 | Foamy | 68 | Foray | 239 |
| Flat | 187 | Flood | 283 | Fob | 68 | Forbade | 239 |
| Flatiron | 236 | Flora | 495 | Focusing | 68 | Forbear | 239 |
| Flatly | 236 | Floral | 284 | Fodder | 68 | Forbearance | 239 |
| Flatness | 236 | Florence | 495 | Foe | 69 | Forbid | 239 |
| *FLATTER | 236 | Floret | 284 | Foeman | 69 | Forbidden | 239 |
| Flatter | 236 | Florid | 284 | *FOG | 69 | Forbidding | 239 |
| Flatten | 236 | Floridity | 284 | • Fog | 187 | Forborn | 239 |
| Flattered | 77 | Florin | 284 | Foggily | 70 | Force | 239 |
| Flattering | 77 | Floscular | 284 | Fogginess | 70 | Forced | 239 |
| Flatterer | 77 | Floscule | 284 | Foggy | 70 | Forcing | 239 |
| Flattery | 77 | Flosculous | 284 | Foggism | 70 | Forceps | 246 |
| Flattest | 236 | Floss | 284 | Foible | 71 | Forcer | 246 |
| Flatulence | 77 | Flotation | 284 | Foil | 71 | Forcible | 246 |
| Flatulent | 78 | Flotilla | 284 | Foiled | 71 | Forcibly | 246 |
| Flaunt | 78 | Flounder | 284 | Foiling | 239 | Ford | 246 |
| Flaunting | 78 | Flounced | 284 | Foist | 239 | Fordable | 246 |
| Flavor | 78 | Flounder | 284 | Foisting | 239 | Forded | 246 |
| Flavoring | 78 | Floundering | 284 | Fold | 239 | Fording | 246 |
| Flavorance | 78 | Flourish | 284 | Folded | 239 | Fore | 246 |
| Flaw | 78 | Flourished | 284 | Folder | 239 | Forearm | 246 |
| *FLAX | 79 | Flourishing | 284 | Folding | 239 | Forebode | 246 |
| Flax | 187 | Flowret | 284 | Foliage | 239 | Forecast | 246 |
| Flaxen | 79 | Flowery | 284 | Foliate | 239 | Forecastle | 246 |
| Flaxseed | 79 | *FLOWN | 157 | Foliation | 239 | Forecited | 246 |

*Trade Words in capitals are duplicated. Use prefix oo only when ordering goods applying to Trade Words in capitals.

TRADE WORD INDEX—Continued.

| | Page | | Page | | Page | | Page |
|------------------|------|--------------------|------|------------------|------|------------------|------|
| Foreclose..... | 246 | Formular..... | 240 | Freehold..... | 243 | Frothily..... | 245 |
| Foreclosure..... | 246 | Formulate..... | 240 | Freely..... | 75 | Frothing..... | 245 |
| Forefather..... | 246 | Forray..... | 240 | Freeness..... | 75 | Frothy..... | 245 |
| Forefend..... | 246 | Forsake..... | 240 | Freestone..... | 75 | Frounce..... | 245 |
| Forefinger..... | 246 | Forsooth..... | 240 | Freewill..... | 75 | Frowned..... | 245 |
| Forefoot..... | 246 | Forswear..... | 240 | Freeze..... | 75 | Frowning..... | 245 |
| Forefront..... | 246 | Fort..... | 240 | Frenchy..... | 75 | Frouzy..... | 245 |
| Forego..... | 246 | Fortwith..... | 240 | Frequent..... | 245 | Frown..... | 245 |
| Foregoing..... | 246 | Fortify..... | 240 | Frequenter..... | 75 | Frowned..... | 242 |
| Foreground..... | 246 | Fortification..... | 240 | Fresco..... | 75 | Frowning..... | 242 |
| Forehandler..... | 246 | Fortitude..... | 240 | Frescoed..... | 76 | Frozen..... | 242 |
| Forehead..... | 246 | Fortress..... | 240 | Frescoing..... | 76 | Frugal..... | 242 |
| Foreign..... | 246 | Fortunate..... | 240 | Fresher..... | 76 | Frugality..... | 242 |
| Foreigner..... | 246 | Fortune..... | 240 | Freshest..... | 77 | Fruit..... | 242 |
| Foreland..... | 246 | Forum..... | 240 | Freshet..... | 241 | Fruitage..... | 242 |
| Forelock..... | 246 | Forward..... | 240 | Freshly..... | 241 | Fruitful..... | 242 |
| Foreman..... | 246 | Fossil..... | 240 | *FRET..... | 187 | Fruition..... | 242 |
| Foremost..... | 246 | Foster..... | 240 | Fret..... | 241 | Fruitless..... | 242 |
| *FORENAME..... | 246 | Fought..... | 240 | Fretful..... | 241 | Frustrate..... | 242 |
| Forename..... | 246 | Foul..... | 240 | Fretfully..... | 241 | Frustration..... | 242 |
| Forepart..... | 246 | Fouled..... | 241 | Fretted..... | 241 | Fuddle..... | 242 |
| Forerun..... | 246 | Foulness..... | 71 | Fretting..... | 241 | Fudge..... | 242 |
| Forerail..... | 246 | Foundation..... | 241 | Friable..... | 241 | Fuel..... | 242 |
| Foreseen..... | 246 | Foundling..... | 71 | Friary..... | 241 | Fugacious..... | 242 |
| Foreseer..... | 246 | Foundry..... | 71 | Fribble..... | 241 | Fugacity..... | 242 |
| Foreshadow..... | 246 | Fount..... | 241 | Fricasee..... | 241 | Fugitive..... | 242 |
| Foresight..... | 246 | Fountain..... | 241 | Friction..... | 241 | Fulfil..... | 242 |
| Foreskin..... | 246 | Fowl..... | 72 | Fried..... | 241 | Fulfillment..... | 242 |
| Forest..... | 246 | Fowler..... | 72 | Friendless..... | 241 | Fulgent..... | 242 |
| Forestall..... | 246 | Fox..... | 187 | Friendly..... | 241 | Full..... | 242 |
| Forester..... | 246 | Foxall..... | 187 | Frigate..... | 241 | Fuller..... | 242 |
| Foretaste..... | 246 | Foxglove..... | 187 | Fright..... | 241 | Fullery..... | 242 |
| Foretell..... | 246 | Foxhound..... | 187 | Frighten..... | 241 | Fullest..... | 242 |
| Forethought..... | 246 | *FOXY..... | 187 | Frightful..... | 241 | Fulminate..... | 242 |
| Foretold..... | 246 | Foxy..... | 241 | Frigid..... | 241 | Fullness..... | 242 |
| Foretop..... | 246 | Fracas..... | 241 | Frigidity..... | 241 | Fulsome..... | 242 |
| Forfeit..... | 246 | Fraction..... | 72 | Frill..... | 241 | Fulvid..... | 242 |
| Forfeitable..... | 246 | Fracture..... | 72 | Frilled..... | 241 | Fulvous..... | 243 |
| Forfeiture..... | 246 | Fragile..... | 241 | Frilling..... | 241 | Fumble..... | 243 |
| Forgave..... | 246 | Fragment..... | 72 | Fringe..... | 241 | Fume..... | 243 |
| *FORGE..... | 246 | Fragility..... | 241 | Fringed..... | 241 | Fumigate..... | 243 |
| Forge..... | 187 | Fragrance..... | 72 | Fringing..... | 241 | Fumigated..... | 243 |
| Forged..... | 246 | Fragrant..... | 241 | Frippery..... | 241 | Fumigating..... | 243 |
| Forging..... | 246 | Frail..... | 241 | Frisected..... | 433 | Fumigation..... | 243 |
| Forger..... | 246 | Frailest..... | 72 | Frisk..... | 241 | Function..... | 243 |
| Forgery..... | 246 | Frailty..... | 72 | Frisked..... | 241 | Functional..... | 243 |
| Forget..... | 246 | *FRAME..... | 72 | Frisking..... | 241 | Functionary..... | 243 |
| Forgetful..... | 247 | Frame..... | 30 | Frisky..... | 241 | Fund..... | 243 |
| Forgivable..... | 247 | Framing..... | 73 | Frith..... | 245 | Fundament..... | 243 |
| Forgive..... | 247 | Frances..... | 495 | Fritheism..... | 445 | Furious..... | 243 |
| Forgiveness..... | 247 | Frankly..... | 72 | Fritter..... | 245 | Furiously..... | 243 |
| Forgiver..... | 247 | Frankness..... | 73 | Frittered..... | 245 | Furlong..... | 243 |
| Forgiving..... | 247 | Frantic..... | 73 | Frittering..... | 245 | Furnace..... | 243 |
| Forgotten..... | 247 | Franticness..... | 73 | Frivolous..... | 245 | Furnish..... | 243 |
| Fork..... | 247 | Fraternal..... | 73 | Frivolity..... | 245 | Furrier..... | 243 |
| Forked..... | 247 | Fraternity..... | 73 | Friz..... | 245 | Furrow..... | 243 |
| Forlorn..... | 247 | Fraternize..... | 73 | Frizzle..... | 245 | Furtive..... | 243 |
| Form..... | 247 | Fratricide..... | 73 | Frock..... | 245 | Fury..... | 243 |
| Formal..... | 247 | Fraud..... | 74 | Frog..... | 187 | Fuse..... | 187 |
| Formalism..... | 240 | Fraudulence..... | 74 | Frolic..... | 245 | Fuscon..... | 243 |
| Formalist..... | 240 | Fraudulent..... | 74 | Froliced..... | 245 | Fusillade..... | 243 |
| Formality..... | 240 | Fraught..... | 74 | Frolicing..... | 245 | Fusion..... | 243 |
| Formation..... | 240 | Fray..... | 74 | Frolicsome..... | 245 | Fussy..... | 136 |
| Formative..... | 240 | Freak..... | 74 | Frontage..... | 245 | Fustian..... | 136 |
| *FORMER..... | 240 | Freakish..... | 74 | Frontal..... | 245 | Fustic..... | 207 |
| Former..... | 247 | Freckle..... | 74 | Frontier..... | 245 | Futile..... | 207 |
| Formerly..... | 240 | Fred..... | 187 | Frontless..... | 245 | Future..... | 207 |
| Formidable..... | 240 | Frederick..... | 495 | Frost..... | 245 | Gab..... | 312 |
| Forming..... | 247 | Freeborn..... | 74 | Frostbitten..... | 245 | Gabber..... | 312 |
| Formless..... | 240 | Freedman..... | 75 | Froth..... | 245 | Gabbling..... | 312 |
| Formula..... | 240 | Freedom..... | 243 | Frothed..... | 245 | | |

*Trade Words in capitals are duplicated. Use prefix oo only when ordering goods applying to Trade Words in capitals.

TRADE WORD INDEX—Continued.

| | Page | | Page | | Page | | Page |
|------------|------|------------|------|------------|------|------------|------|
| Gabion | 252 | Gauging | 259 | Gift | 312 | Grateron | 268 |
| Gabriel | 495 | Gaulish | 259 | Gifted | 312 | Gratifying | 268 |
| Gachette | 252 | Gaunt | 312 | Gig | 312 | Gravacier | 268 |
| Gad | 312 | Gauntlet | 312 | Gigantic | 312 | Gravamen | 268 |
| Gadder | 252 | Gautelet | 255 | Gigantean | 266 | Graveland | 268 |
| Gadding | 252 | Gauze | 312 | Giggle | 312 | Graystone | 268 |
| Gadfly | 312 | Gavelet | 259 | Giggling | 266 | Greciste | 268 |
| Gaff | 312 | Gay | 312 | Gigot | 266 | Greenfinch | 268 |
| Gagged | 252 | Gayly | 312 | Gild | 312 | Greengage | 268 |
| Gagiste | 252 | Gayness | 259 | Gilder | 266 | Greenish | 268 |
| Galety | 252 | Gaze | 312 | Gilding | 267 | Greeting | 268 |
| Gaily | 311 | Gazeful | 312 | Giles | 495 | Greffier | 268 |
| Gainable | 311 | Gazement | 190 | Gimcrack | 266 | Gregarious | 268 |
| Gainful | 311 | Gazer | 226 | Gimlet | 266 | Grelotter | 268 |
| Gainfully | 311 | Gazette | 226 | Gingival | 266 | Gresiller | 268 |
| Gainless | 311 | Gelatinous | 202 | Gingler | 266 | Grief | 268 |
| Gainsay | 311 | Gelding | 220 | Girandole | 266 | Griffin | 268 |
| Gairishly | 252 | Geldity | 220 | Girdless | 266 | Grigon | 268 |
| Gait | 311 | Gelinotte | 220 | Glabreate | 266 | Grillage | 268 |
| Galactine | 252 | Gelivure | 220 | Glaciate | 266 | Grindstone | 272 |
| Galaxy | 253 | Gem | 265 | Glacier | 311 | Gripper | 272 |
| Galeated | 253 | Gemissant | 265 | Glade | 311 | Grisettes | 272 |
| Galega | 253 | Gemmation | 265 | Gladden | 311 | Grittiness | 272 |
| Galerite | 253 | Gendarme | 265 | Gladdening | 311 | Grizzle | 272 |
| Galenique | 253 | Gender | 265 | Gladiator | 311 | Grognard | 272 |
| Galician | 253 | Geneology | 265 | Gladly | 311 | Gronder | 272 |
| Galiot | 253 | Generable | 265 | Gladness | 311 | Ground | 272 |
| Gallation | 253 | Generant | 265 | Gladsome | 266 | Groundless | 272 |
| Galliard | 253 | Genial | 265 | Glanced | 266 | Groundwork | 272 |
| Gallicism | 253 | Genialness | 265 | Glancerous | 266 | Grudgingly | 272 |
| Gallipot | 253 | Geniculate | 265 | Glazier | 266 | Grugerie | 272 |
| Gallopad | 253 | Geniture | 265 | Glaucome | 266 | Grutching | 272 |
| Galloping | 253 | Genteel | 265 | Glebaus | 266 | Guardship | 272 |
| Galloway | 255 | Gentility | 265 | Gleeful | 266 | Guerdon | 273 |
| Galuchat | 255 | Gentlefolk | 265 | Gliness | 267 | Guichet | 273 |
| Gamashes | 255 | Gentleman | 265 | Globated | 267 | Guidable | 273 |
| Gambade | 255 | Gentleness | 265 | Globasity | 267 | Guild | 273 |
| Gambette | 255 | Gentry | 265 | Glomorate | 267 | Guildhall | 273 |
| Gameless | 311 | Genuine | 265 | Gloomily | 267 | Guileful | 273 |
| Gamesome | 311 | Geocentric | 265 | Gloominess | 267 | Guileless | 273 |
| Gamester | 311 | Geodesy | 265 | Glorifying | 267 | Guillotine | 273 |
| Gaming | 311 | Geodetice | 265 | Glorious | 267 | Guiltily | 273 |
| Gammon | 311 | Geogonical | 265 | Glottal | 267 | Guimpe | 273 |
| Gamut | 311 | Geological | 265 | Glowworm | 267 | Guinea | 273 |
| *GANDER | 255 | Geology | 265 | Glutinate | 267 | Gullet | 273 |
| Gander | 311 | Geomantic | 265 | Glypie | 267 | Gullible | 273 |
| Ganglion | 255 | Geometral | 265 | Gloating | 267 | Gumboil | 273 |
| Gaoler | 255 | George | 495 | Goberges | 267 | Gustavus | 495 |
| Garcinia | 255 | Georgics | 265 | Godchild | 267 | Guy | 495 |
| Garcon | 255 | Geoscopy | 265 | Godfather | 267 | Halving | 118 |
| Garden | 258 | Geranium | 265 | Godfrey | 495 | Ham | 123 |
| Gardevois | 255 | Gerard | 495 | Godiller | 267 | Hamble | 120 |
| Gargle | 255 | Geraldine | 495 | Goitrous | 267 | Hamlet | 122 |
| Gargotage | 258 | Gerfent | 265 | Goldlace | 267 | Hamper | 122 |
| Garishness | 258 | Germanic | 265 | Goloshes | 267 | Hampering | 119 |
| Garment | 258 | Germinate | 265 | Gomphosjs | 267 | Hampered | 119 |
| Gasconade | 258 | Gertrude | 495 | Gonoplax | 267 | Hamstring | 119 |
| Gaselier | 258 | Gerund | 265 | Goodwill | 267 | Hanaper | 119 |
| Gashing | 258 | Gerundial | 265 | Gormandise | 268 | Handcuff | 123 |
| Gasometer | 258 | Gestation | 265 | Gothical | 268 | Hanged | 341 |
| Gaspillage | 258 | Gesture | 265 | Goulote | 268 | Hanging | 341 |
| Gasping | 258 | Geyser | 265 | Gourmand | 268 | Hangman | 341 |
| Gastritis | 259 | Gherkin | 265 | Governable | 268 | Hangnail | 152 |
| Gastronome | 259 | Ghostlike | 265 | Grabuge | 268 | Hanker | 152 |
| Gastropod | 259 | Giant | 265 | Graciable | 268 | Hankering | 152 |
| Gateau | 259 | Gibberish | 265 | Grafted | 268 | Hannah | 495 |
| Gatehouse | 259 | Gibbet | 266 | Graisage | 268 | Hapless | 152 |
| Gateway | 259 | Gibbosity | 266 | Grandchild | 268 | Haply | 152 |
| Gathering | 259 | Gibelotte | 266 | Grandpere | 268 | Happen | 152 |
| Gattilier | 259 | Gibingly | 266 | Grange | 268 | Happening | 152 |
| Gaucherie | 259 | Giddy | 312 | Grappling | 268 | Happily | 120 |

*Trade Words in capitals are duplicated. Use prefix oo only when ordering goods applying to Trade Word in capitals.

TRADE WORD INDEX—Continued.

| Page | | Page | | Page | |
|---------------------|--------------------|---------------------|---------------------|------|--|
| Happiness.....120 | Hedgerow.....399 | Indeed.....468 | Juice.....261 | | |
| Happy.....120 | Hedonic.....399 | Indelible.....14 | Juiceless.....261 | | |
| Harangue.....120 | Helen.....495 | Indelicate.....468 | Juiciness.....261 | | |
| Harangued.....400 | Henry.....496 | Indelope.....468 | Juicy.....261 | | |
| Haranguing.....400 | Herbert.....496 | Indemnity.....14 | Julep.....261 | | |
| Harass.....400 | Horatio.....496 | Indenize.....468 | Julia.....495 | | |
| Harassing.....400 | Hosea.....496 | Indent.....468 | Julian.....261 | | |
| Harbinger.....400 | Hugh.....496 | Indenting.....468 | Juliet.....495 | | |
| Harbor.....400 | Huldah.....495 | Indentive.....468 | Jumble.....261 | | |
| Harborage.....400 | Humphrey.....496 | Indentured.....468 | Jumbled.....261 | | |
| Harboring.....400 | Iambic.....11 | Indenture.....14 | Jumbler.....261 | | |
| Harboreless.....400 | Ibex.....11 | Independent.....14 | Jumbling.....261 | | |
| Hardened.....400 | Icing.....11 | Index.....14 | Jump.....261 | | |
| Hardening.....400 | Ictene.....11 | Indian.....468 | Jumped.....261 | | |
| Hardest.....400 | Ida.....495 | Indorse.....468 | Jumper.....261 | | |
| Hardihood.....400 | Identical.....11 | Indorsement.....468 | Katharine.....495 | | |
| Hardly.....400 | Identify.....11 | Indexed.....468 | Keel.....408 | | |
| Hardness.....400 | Idealist.....11 | Inez.....495 | Keelage.....408 | | |
| Hardship.....400 | Idiocy.....11 | Irene.....495 | Keeled.....408 | | |
| Hearcot.....400 | Idle.....11 | Isaac.....496 | Keelhaul.....408 | | |
| Harelip.....400 | Idleness.....342 | Isabel.....495 | Keelhauling.....408 | | |
| Harelippped.....400 | Idler.....342 | Israel.....496 | Keelson.....408 | | |
| Harem.....400 | Idly.....342 | Jacana.....496 | Keen.....410 | | |
| Harlequin.....400 | Idolater.....342 | Jacent.....496 | Kendal.....408 | | |
| Harlot.....400 | Idolatry.....342 | Jacket.....496 | Kemelin.....410 | | |
| Harm.....400 | Igneous.....342 | Jactancy.....496 | Kidnapped.....415 | | |
| Harmed.....400 | Ignominy.....11 | Jacob.....496 | Kidnapper.....415 | | |
| Harmful.....400 | Ignor.....7 | James.....496 | Kidnapping.....415 | | |
| Harmonic.....224 | Ignoramus.....11 | Jane.....495 | Kidney.....415 | | |
| Harmonist.....224 | Ignorance.....7 | Janet.....495 | Kildeer.....415 | | |
| Harmonical.....224 | Illation.....7 | Jactation.....495 | Kill.....415 | | |
| Harmonize.....224 | Illative.....7 | Jaculate.....495 | Killas.....415 | | |
| Harping.....224 | Illegally.....7 | Jeg.....496 | Killed.....415 | | |
| Harness.....224 | Illegible.....7 | Jejunal.....496 | Killer.....415 | | |
| Harold.....495 | Illiteracy.....7 | Jelly.....496 | Kilt.....413 | | |
| Harriet.....495 | Illiterate.....7 | Jemima.....495 | Kimbo.....413 | | |
| Hatch.....121 | Illness.....7 | Jeno.....496 | Kinate.....410 | | |
| Haze.....396 | Illume.....7 | Jeremiah.....496 | Kind.....410 | | |
| Haziness.....396 | Illuminate.....7 | Jerid.....496 | Kinded.....410 | | |
| Head.....396 | Illumine.....7 | Jernoonal.....496 | Kipper.....410 | | |
| Headed.....396 | Illusion.....7 | Jeronymite.....496 | Kist.....410 | | |
| Headfast.....396 | Illusive.....7 | Jeropigia.....496 | Kitcat.....410 | | |
| Heading.....396 | Illusory.....7 | Jerquing.....496 | Labefy.....273 | | |
| Headland.....396 | Illustrate.....7 | Jerrybuilt.....496 | Labented.....273 | | |
| Headland.....396 | Illustrious.....7 | Jerusalem.....496 | Labiale.....273 | | |
| Headless.....396 | Image.....325 | Jerusha.....495 | Labiated.....273 | | |
| Hearken.....404 | Imaged.....325 | Jess.....496 | Labarant.....273 | | |
| Hearsay.....404 | Imagery.....7 | Jessamine.....496 | Laboratory.....273 | | |
| Hearse.....404 | Imaginable.....7 | Jessant.....496 | Labourage.....273 | | |
| Hebraic.....121 | Imaginary.....7 | Jessed.....496 | Labrose.....273 | | |
| Hebraism.....121 | Imagination.....7 | Jessuitess.....496 | Laburnam.....273 | | |
| Hebraistic.....121 | Imagine.....7 | Jewish.....496 | Lace.....413 | | |
| Hebraize.....121 | Imbecile.....325 | Jewry.....496 | Lacem'n.....273 | | |
| Hebraized.....121 | Imbecility.....325 | Jewsharp.....496 | Lacerate.....413 | | |
| Hebrew.....121 | Inability.....7 | Jewstone.....496 | Lacerated.....413 | | |
| Hebrewess.....121 | Inactive.....13 | Jezebel.....496 | Lacerating.....413 | | |
| Hecatomb.....399 | Inadequate.....13 | Jiffy.....496 | Laceration.....413 | | |
| Heck.....399 | Inadventant.....13 | Jigjog.....496 | Lacertain.....273 | | |
| Heckle.....399 | Inanimate.....13 | Jimcrack.....496 | Lachement.....273 | | |
| Hectic.....399 | Inattention.....13 | Jimcrow.....496 | Lachrymal.....273 | | |
| Hectare.....399 | Inaudible.....13 | Joan.....495 | Lacinated.....277 | | |
| Hect'cal.....399 | Inaugurate.....13 | John.....496 | Lacipede.....277 | | |
| Hector.....399 | Inborn.....13 | Jonas.....496 | Lacquered.....277 | | |
| Hector'd.....399 | Inbred.....13 | Jonathan.....496 | Laconique.....277 | | |
| Hectoring.....399 | Incege.....13 | Joseph.....496 | Lactescent.....277 | | |
| Hectorism.....399 | Incapable.....13 | Josephine.....495 | Lactifical.....277 | | |
| Hectorly.....399 | Incarinate.....13 | Joshua.....496 | Lactometer.....277 | | |
| Heddler.....399 | Incase.....13 | Josiah.....496 | Lacustrine.....277 | | |
| Hederal.....399 | Incessant.....13 | Judah.....496 | Ladify.....277 | | |
| Hedge.....399 | Incrust.....254 | Judith.....495 | Ladybird.....277 | | |
| Hedging.....399 | Indecision.....13 | Jugular.....261 | Ladylike.....277 | | |
| Hedgepig.....399 | Indecorous.....13 | Jugulate.....261 | Ladylove.....277 | | |

TRADE WORD INDEX—Continued.

| | Page | | Page | | Page | | Page |
|-------------|------|------------|------|-------------|------|------------|------|
| Ladyship | 277 | Lapping | 428 | Leach | 404 | Lenitive | 381 |
| Laggard | 415 | Lappingly | 277 | Leaderless | 280 | Lentement | 281 |
| Lagoon | 415 | Lapsable | 277 | Leadership | 280 | Lenticular | 281 |
| Laical | 277 | Lapse | 428 | Leadingly | 280 | Lentiform | 281 |
| Laideron | 277 | Lapsed | 428 | Leak | 401 | Lentil | 281 |
| Laidonite | 277 | Lapsing | 428 | Leaking | 401 | Lentilleux | 281 |
| Lainage | 277 | Lapstone | 277 | Leamer | 190 | Lentiscus | 281 |
| Laitance | 277 | Lapwing | 428 | Leapfrog | 280 | Lentisque | 281 |
| Laiteron | 277 | Laqueton | 277 | Learn | 401 | Lentitude | 281 |
| Lallation | 277 | Lardaceous | 277 | Learnable | 280 | Leonard | 496 |
| Lamaneur | 277 | Larder | 277 | Learned | 401 | Leonora | 495 |
| Lamantine | 277 | Largement | 277 | Learnedly | 280 | Leonurus | 281 |
| Lambative | 277 | Largess | 428 | Learner | 401 | Lepadite | 281 |
| Lambent | 277 | Larghetto | 277 | Learning | 401 | Lepidosis | 281 |
| Lambiner | 277 | Largition | 280 | Leased | 401 | Leopold | 495 |
| Lambourde | 277 | Lariat | 428 | Leasehold | 401 | Leporine | 281 |
| Lambrequin | 277 | Larigot | 280 | Leash | 401 | Leproserie | 281 |
| Lambrusque | 277 | Larking | 280 | Leather | 405 | Leptology | 281 |
| Lambswool | 277 | Larkspur | 280 | Leatherless | 405 | Lepturtic | 281 |
| Lamella | 277 | Larmier | 280 | Leathery | 281 | Lesbian | 281 |
| Lameness | 277 | Larmoyant | 280 | Leaveless | 401 | Lesinerie | 281 |
| Lament | 415 | Larroneau | 280 | Leavening | 401 | Lethality | 281 |
| Lament ble | 415 | Larvated | 280 | Lecher | 399 | Lettered | 281 |
| Lamenting | 415 | Laryngeal | 280 | Lecherous | 281 | Leucine | 282 |
| Laminage | 277 | Lash | 404 | Lecture | 399 | Leucoma | 282 |
| Laminating | 277 | Lassitude | 280 | Lectionary | 281 | Leucothorp | 286 |
| Lamish | 277 | Lastage | 404 | Lecturer | 281 | Levanted | 286 |
| Lamkin | 415 | Lastingly | 280 | Ledger | 281 | Levantine | 286 |
| Lammas | 277 | Latches | 393 | Leechcraft | 281 | Level | 191 |
| Lampadaire | 277 | Latchet | 280 | Leering | 281 | Leveled | 408 |
| Lampate | 277 | Latchkey | 393 | Leetide | 399 | Leverett | 286 |
| Lamperon | 277 | Latchless | 393 | Left | 401 | Leviabie | 408 |
| Lamprey | 277 | Latency | 280 | Leg | 191 | Levigate | 286 |
| Lamprillon | 277 | Lath | 404 | Legalment | 281 | Leverate | 408 |
| Lanceolate | 277 | Latin | 393 | Legalist | 281 | Levrander | 286 |
| Lancet | 396 | Lathing | 280 | Legally | 406 | Levron | 286 |
| Lancewood | 277 | Laticlave | 280 | Legataire | 281 | Lewis | 496 |
| Lancinant | 277 | Latinistic | 280 | Legatary | 281 | Lexicology | 286 |
| Land | 396 | Latrocity | 280 | Legate | 406 | Lexigraphy | 287 |
| Landau | 396 | Laudanum | 280 | Legatee | 406 | Leyden | 408 |
| Landaulet | 277 | Laudatory | 388 | Legatine | 281 | Libation | 434 |
| Landed | 396 | Lauder | 280 | Legation | 406 | Libeling | 434 |
| Landfall | 277 | Laugh | 388 | Legerement | 281 | Libelous | 434 |
| Landgrave | 277 | Laughable | 388 | Legerete | 281 | Liberal | 435 |
| Landholder | 396 | Laughed | 388 | Legerity | 281 | Liberality | 288 |
| Landlady | 396 | Laughter | 388 | Legible | 406 | Liberally | 435 |
| Landless | 277 | Laumonite | 388 | Legibility | 281 | Libidinous | 288 |
| Landlot | 396 | Laundry | 406 | Legibly | 406 | Librarian | 435 |
| Landlubber | 396 | Laura | 495 | Legion | 406 | Librate | 434 |
| Landowner | 396 | Laureate | 406 | Legionary | 281 | Librement | 289 |
| Langourous | 277 | Laureation | 280 | Legislate | 406 | Licencious | 435 |
| Langouste | 277 | Laurel | 406 | Legislating | 405 | Licensing | 434 |
| Languisher | 277 | Laurelled | 280 | Legislative | 398 | Lichenic | 289 |
| Laniary | 277 | Laurin | 406 | Legislator | 398 | Licitation | 289 |
| Laniferous | 277 | Lava | 406 | Legislature | 398 | Licking | 289 |
| Lanifce | 277 | Lavaret | 280 | Legitimate | 398 | Liegeman | 289 |
| Lank | 428 | Lavation | 406 | Legitimely | 398 | Liegency | 289 |
| Lanky | 277 | Lavatory | 406 | Legimist | 398 | Lieutenant | 433 |
| Lankness | 277 | Lavement | 404 | Legless | 398 | Life | 190 |
| Lanneret | 277 | Lavished | 404 | Legumen | 281 | Lifeguard | 289 |
| Lantern | 428 | Lawday | 404 | Leiothy | 281 | Lifelike | 289 |
| Lanturlu | 277 | Lawlessly | 399 | Leisure | 398 | Lifter | 289 |
| Lannuginous | 277 | Lawlor | 399 | Leisurely | 398 | Lifetime | 289 |
| Lapdog | 428 | Lawrence | 496 | Lemanite | 281 | Lightbody | 289 |
| Lapereau | 277 | Lawsuit | 399 | Leming | 398 | Lighten | 435 |
| Lapicide | 277 | Lawyer | 399 | Lemniscate | 281 | Lightfoot | 290 |
| Lapidary | 428 | Lawyerly | 399 | Lemon | 398 | Lightsome | 290 |
| Lapidation | 277 | Laxation | 280 | Lemurian | 281 | Lignager | 290 |
| Lapideous | 277 | Layering | 280 | Lender | 405 | Ligneus | 290 |
| Lapidifie | 277 | Lazarist | 280 | Lendore | 281 | Ligniform | 290 |
| Lapidist | 277 | Lazulite | 280 | Lengthwise | 281 | Lignerolle | 290 |
| Lappet | 277 | Lazarder | 287 | Lenifier | 281 | Ligulate | 389 |

| Figure | Page | Litigation | Page | Loin | Page | Lowborn | Page |
|------------|------|-------------|------|------------|------|--------------|------|
| Ligurate | 389 | Litmus | 458 | Lointain | 293 | Lowbred | 295 |
| Liking | 435 | Litates | 255 | Loiter | 437 | Loweringly | 295 |
| Lilac | 435 | Littleness | 458 | Loitering | 293 | Lowly | 438 |
| Lilaceous | 290 | Liturgical | 255 | Lollard | 293 | Lowness | 439 |
| Lilalite | 389 | Liturgist | 255 | Lollardism | 293 | Loyal | 438 |
| Lilipution | 389 | Livelihood | 458 | Lombardic | 293 | Loyalist | 438 |
| Lillian | 495 | Liverwort | 255 | Lombrical | 293 | Loyal ly | 438 |
| Limaceous | 290 | Liveryman | 255 | Loment | 436 | Loyalment | 295 |
| Limacon | 291 | Lividity | 255 | Lomentage | 293 | Lozenge | 438 |
| Limbate | 449 | Lixivial | 293 | Londoner | 436 | Lubber | 438 |
| Limbed | 291 | Lizard | 442 | Long | 436 | Lubicator | 295 |
| Limbo | 448 | Load | 457 | Longer | 450 | Lucernal | 295 |
| Limeburner | 291 | Loadstar | 293 | Longest | 450 | Luchador | 295 |
| Limekiln | 433 | Loadstone | 442 | Longeval | 450 | Lucid | 438 |
| Limelight | 291 | Loafer | 442 | Longevity | 450 | Lucidity | 438 |
| Limestone | 433 | Loafing | 442 | Longevous | 450 | Lucidness | 295 |
| Limewater | 291 | Loam | 442 | Longheaded | 293 | Lucidura | 295 |
| Limitation | 433 | Loan | 190 | Longing | 450 | Lucifer | 438 |
| Limmer | 433 | Loathful | 442 | Longingly | 450 | Luckily | 438 |
| Limonite | 454 | Loathing | 293 | Longlegs | 293 | Luckiness | 438 |
| Limp | 454 | Loathsome | 442 | Longtail | 293 | Luckless | 438 |
| Limpid | 433 | Loaves | 406 | Longtemps | 293 | Lucre | 295 |
| Limpsey | 433 | Lobated | 293 | Longways | 293 | Luculent | 295 |
| Limpingly | 292 | Lobbing | 293 | Loobill | 293 | Lucicrous | 295 |
| Limpitude | 292 | Lobby | 406 | Looby | 293 | Lugareno | 295 |
| Linder | 190 | Lobe | 457 | Looking | 293 | Lugubrious | 295 |
| Lineage | 433 | Lobelet | 293 | Loom | 440 | Luke | 496 |
| Ling | 455 | Lobed | 458 | Looming | 440 | Lukewarm | 295 |
| Linget | 455 | Lobelia | 293 | Loophole | 294 | Lumachelle | 295 |
| Lingo | 433 | Lobelig | 457 | Loose | 440 | Lumbered | 295 |
| Linguistic | 292 | Loblolly | 442 | Loosely | 440 | Luminosity | 295 |
| Lingulate | 292 | Loblollyboy | 442 | Loosen | 440 | Lunatic | 295 |
| Lining | 442 | Lobsouse | 293 | Looseness | 440 | Lunatique | 295 |
| Linkboy | 292 | Lopster | 191 | Loppered | 294 | Luncheon | 295 |
| Linkman | 292 | Lobstered | 293 | Looping | 294 | Lunette | 295 |
| Linocean | 292 | Lobworn | 293 | Loquacious | 294 | Lungis | 394 |
| Lionlike | 292 | Localement | 293 | Loquacity | 294 | Lungless | 295 |
| Lipogram | 292 | Localism | 293 | Loqueteau | 294 | Lungwort | 295 |
| Lipptide | 292 | Localized | 293 | Loquette | 294 | Luniform | 394 |
| Liquation | 292 | Locally | 442 | Lord | 147 | Lupercales | 295 |
| Liquefy | 292 | Locataire | 293 | Lordliness | 440 | Lupine | 394 |
| Liquescent | 2-2 | Located | 293 | Lordling | 294 | Lurcher | 295 |
| Liquid | 292 | Locating | 442 | Lordly | 440 | Luridness | 295 |
| Liquidity | 292 | Location | 293 | Lordship | 440 | Lurker | 295 |
| Liquidness | 292 | Lock | 191 | Lordum | 294 | Luscious | 445 |
| Liquor | 389 | Lockless | 293 | Loresman | 294 | Lusciously | 445 |
| Liseron | 292 | Lockram | 293 | Lorgnade | 294 | Lusciousness | 445 |
| Lisbond | 389 | Locksmith | 442 | Lorgnerie | 294 | Luster | 445 |
| Lisp | 389 | Locomotion | 293 | Loricat | 294 | Lusthood | 295 |
| Lisped | 389 | Locronan | 293 | Lorication | 294 | Lustiness | 295 |
| Lisping | 389 | Locular | 293 | Lorigade | 294 | Lustrage | 295 |
| Lispingly | 389 | Locust | 435 | Lormer | 294 | Lustrous | 295 |
| Listen | 389 | Lode | 435 | Lotaphages | 295 | Lustwort | 295 |
| Listened | 389 | Lodestone | 293 | Lotion | 440 | Lusty | 295 |
| Listener | 472 | Lodge | 436 | Lottisages | 295 | Lute | 295 |
| Listening | 389 | Lodgeable | 293 | Lourdand | 295 | Lutheran | 296 |
| Listful | 389 | Lodged | 436 | Lourdement | 295 | Luttrestring | |

Trade Words in capitals are duplicated. Use prefix so only when ordering goods applying to Trade Word in capitals.

TRADE WORD INDEX—Continued.

| Page | | Page | | Page | | Page | |
|-----------------|-----|-----------------|-----|-----------------|-----|-----------------|-----|
| Machefer..... | 307 | Maleson..... | 309 | Marabout..... | 310 | Mastery..... | 314 |
| Machicot..... | 307 | Malister..... | 310 | Maquerean..... | 310 | Masticable..... | 314 |
| Machinate..... | 307 | Malleable..... | 309 | Mar..... | 332 | Masticate..... | 333 |
| Macilency..... | 307 | Mallinders..... | 309 | Maraschino..... | 310 | Masticated..... | 333 |
| Macleurite..... | 307 | Malotru..... | 309 | Marasmus..... | 310 | Mastiff..... | 333 |
| Maconique..... | 307 | Malpergrie..... | 310 | Maraud..... | 332 | Mastodon..... | 333 |
| Macreuse..... | 307 | Malseant..... | 310 | Marauder..... | 310 | Mastology..... | 314 |
| Macrocasn..... | 307 | Malsonant..... | 310 | Marbler..... | 310 | Matadore..... | 333 |
| Macrology..... | 307 | Malthouse..... | 310 | Marcalina..... | 310 | Match..... | 333 |
| Macropus..... | 307 | Malting..... | 310 | Marcasite..... | 310 | Matchable..... | 314 |
| Mactation..... | 307 | Maltman..... | 310 | Marcation..... | 310 | Matched..... | 333 |
| Mactatory..... | 307 | Maltreat..... | 310 | Marchand..... | 310 | Matching..... | 333 |
| Maculate..... | 309 | Malvaceous..... | 310 | Marcidity..... | 312 | Matchless..... | 314 |
| Madbrained..... | 309 | Malverse..... | 310 | Marcotte..... | 312 | Mathesis..... | 314 |
| Maddening..... | 309 | Mamelon..... | 310 | Marcus..... | 496 | Matricide..... | 314 |
| Madefy..... | 309 | Mameluke..... | 310 | Mardelia..... | 312 | Matronage..... | 314 |
| Madefying..... | 309 | Mammoth..... | 332 | Margaric..... | 312 | Mattress..... | 314 |
| Madhouse..... | 309 | Manacle..... | 332 | Margarous..... | 312 | Maturate..... | 314 |
| Madrigal..... | 309 | Manacled..... | 332 | Margay..... | 312 | Maturing..... | 314 |
| Magabaize..... | 309 | Manacling..... | 332 | Marinated..... | 312 | Matutinal..... | 315 |
| Magianism..... | 309 | Manage..... | 332 | Marionette..... | 312 | Maunday..... | 315 |
| Magistery..... | 309 | Management..... | 332 | Mariated..... | 312 | Maudering..... | 316 |
| Magistracy..... | 309 | Manager..... | 332 | Marjolet..... | 313 | Maurice..... | 496 |
| Magnality..... | 309 | Managing..... | 332 | Marjorum..... | 313 | Mausoleum..... | 316 |
| Magnese..... | 309 | Manakin..... | 332 | Marker..... | 313 | Mauvais..... | 316 |
| Magnesium..... | 309 | Manation..... | 310 | Marketing..... | 313 | Mawkish..... | 316 |
| Magnetic..... | 309 | Manchette..... | 310 | Marlitic..... | 313 | Maxillary..... | 316 |
| Magnifical..... | 309 | Mancipate..... | 310 | Marmaduke..... | 496 | Maxim..... | 333 |
| Magnify..... | 332 | Mandamus..... | 332 | Marmolite..... | 313 | Mayor..... | 333 |
| Magnifying..... | 332 | Mandarin..... | 332 | Marotique..... | 313 | Mayoralty..... | 333 |
| Magnitude..... | 332 | Mandatory..... | 332 | Marquetry..... | 313 | Mayoress..... | 316 |
| Magnolia..... | 332 | Mandate..... | 332 | Marquis..... | 332 | Maypole..... | 316 |
| Magpie..... | 332 | Mandible..... | 310 | Marquisate..... | 313 | *MAZE..... | 145 |
| Magnum..... | 309 | Mandilion..... | 310 | Marred..... | 332 | Maze..... | 316 |
| Mahometan..... | 332 | Mandingo..... | 310 | Marrer..... | 313 | Maziness..... | 316 |
| Maid..... | 332 | Mandolin..... | 310 | Marriage..... | 332 | Mazurka..... | 316 |
| Maiden..... | 332 | Mandrake..... | 332 | Married..... | 332 | Mazy..... | 333 |
| Maidenly..... | 332 | Mandrel..... | 332 | Marrying..... | 332 | Mead..... | 333 |
| Maidhood..... | 309 | Manducable..... | 310 | Marroner..... | 313 | Meadow..... | 333 |
| Maigreur..... | 309 | Maneater..... | 332 | Narrow..... | 332 | Meadway..... | 316 |
| Mailfaim..... | 309 | Manful..... | 332 | Marry..... | 332 | Meager..... | 333 |
| Maim..... | 332 | Manginess..... | 310 | Mars..... | 332 | Meagerness..... | 333 |
| Maimed..... | 332 | Manгонism..... | 310 | Marsand..... | 313 | Meal..... | 333 |
| Maiming..... | 332 | Maniacally..... | 310 | Marshal..... | 332 | Mealiness..... | 333 |
| Mainly..... | 309 | Manifold..... | 310 | Marshaled..... | 332 | Mealman..... | 316 |
| Mainmast..... | 332 | Manikin..... | 310 | Marshaling..... | 332 | Mealtub..... | 316 |
| Mainsail..... | 332 | Maniple..... | 310 | Marshland..... | 313 | Mean..... | 333 |
| Mainmorte..... | 309 | Manique..... | 310 | Marshy..... | 332 | Meander..... | 333 |
| Mainspring..... | 309 | Manor..... | 332 | Marsupial..... | 332 | Meandering..... | 316 |
| Maintainer..... | 309 | Manorial..... | 310 | Mart..... | 332 | Meaning..... | 333 |
| Mairesse..... | 309 | Manoscope..... | 310 | Martagon..... | 313 | Meaningly..... | 333 |
| Majoration..... | 309 | Mansard..... | 310 | Martelage..... | 313 | Meanly..... | 333 |
| Majordome..... | 309 | Manse..... | 310 | Martello..... | 313 | Meanness..... | 333 |
| *Makable..... | 309 | Manservant..... | 310 | Martial..... | 313 | Measles..... | 333 |
| Maker..... | 309 | Mansion..... | 332 | Martin..... | 496 | Measurably..... | 316 |
| Malachite..... | 309 | Mantelet..... | 310 | Martineaux..... | 314 | Measured..... | 333 |
| Malacolite..... | 309 | Mantilla..... | 310 | Martinet..... | 313 | Measuring..... | 333 |
| Malarious..... | 309 | Mantle..... | 332 | Martingal..... | 313 | Meat..... | 333 |
| Malavise..... | 309 | Mantled..... | 332 | Matthew..... | 496 | Mechanic..... | 333 |
| Malaxate..... | 309 | Mantling..... | 332 | Martyr..... | 332 | Mechanics..... | 333 |
| Malcom..... | 496 | Mantology..... | 310 | Martyrdom..... | 332 | Mechanical..... | 316 |
| Maldanian..... | 309 | Manual..... | 332 | Mascaron..... | 313 | Mechanism..... | 333 |
| Maldisant..... | 309 | Manually..... | 332 | Masoretic..... | 314 | Meconic..... | 316 |
| Malebete..... | 309 | Manubial..... | 310 | Maseter..... | 314 | Medal..... | 145 |
| Maledicent..... | 309 | Manumit..... | 310 | *MASTER..... | 328 | Medalet..... | 333 |
| Malefactor..... | 309 | Manurage..... | 310 | Master..... | 333 | Medalist..... | 333 |
| Malefice..... | 309 | Manuscript..... | 332 | Mastered..... | 333 | Medallion..... | 333 |
| Malevolent..... | 309 | Map..... | 332 | Mastering..... | 333 | Meddle..... | 333 |
| Malfaire..... | 309 | Maple..... | 332 | Masterless..... | 333 | Meddled..... | 333 |
| Malgre..... | 309 | Mapped..... | 332 | Masterly..... | 333 | *MEDDLER..... | 316 |
| Malheur..... | 309 | Mapping..... | 332 | Mastership..... | 333 | Meddler..... | 333 |

*Trade Words in capitals are duplicated. Use prefix oo only when ordering goods applying to Trade Word in capitals.

TRADE WORD INDEX—Continued.

| Page | Page | Page | Page |
|----------------------|---------------------|---------------------|---------------------|
| Meddling..... 333 | Merino..... 334 | Midland..... 334 | Misconceit..... 324 |
| Meddlesome..... 316 | Merit..... 334 | Midleg..... 389 | Miscreancy..... 324 |
| Medicine..... 333 | Meritable..... 316 | Midlent..... 389 | Miscreated..... 324 |
| Mediaeval..... 316 | Meritant..... 316 | Midlife..... 389 | Misdoer..... 324 |
| Mediant..... 316 | Merited..... 334 | Midmost..... 389 | Miserably..... 324 |
| Mediate..... 333 | Meriting..... 334 | Midnight..... 334 | Misery..... 335 |
| Mediating..... 333 | Merlette..... 316 | Midst..... 334 | Miserere..... 324 |
| Mediation..... 316 | Merlin..... 316 | Midway..... 334 | Misfare..... 324 |
| Mediator..... 333 | Mermaid..... 334 | Midwife..... 334 | Misform..... 335 |
| Medicament..... 316 | Merrily..... 334 | Midwifery..... 334 | Misfortune..... 335 |
| Medicate..... 333 | Merriment..... 334 | Midwinter..... 334 | Misgive..... 335 |
| Medicated..... 333 | Merriness..... 334 | Midword..... 389 | Misgiving..... 335 |
| Medicinal..... 333 | Merry..... 334 | Mien..... 389 | Misguide..... 335 |
| Mediety..... 316 | Messallier..... 316 | Miemite..... 389 | Misguided..... 325 |
| Mediocre..... 316 | Mesh..... 334 | Miff..... 334 | Misguiding..... 335 |
| Mediocrity..... 316 | Meshed..... 334 | Miffed..... 334 | Mishap..... 335 |
| Meditate..... 333 | Meshing..... 334 | Might..... 334 | Misinfer..... 324 |
| Meditated..... 333 | Mesmerism..... 317 | Mightiness..... 317 | Misjoin..... 335 |
| Medium..... 333 | Mess..... 334 | Mighty..... 334 | Misjudge..... 335 |
| Medler..... 316 | Message..... 334 | Miguard..... 317 | Misjudged..... 335 |
| Medley..... 333 | *MESSENGER..... 334 | Mignonette..... 317 | Misjudging..... 335 |
| Medullary..... 316 | Messenger..... 317 | Migrate..... 334 | Mislay..... 335 |
| Medulline..... 316 | Messiah..... 334 | Migrating..... 334 | Mislayer..... 324 |
| Medusa..... 333 | Messmate..... 317 | Migration..... 334 | Mislead..... 335 |
| Meek..... 333 | Messuage..... 317 | Migratory..... 317 | Misleader..... 335 |
| Meekly..... 333 | Metabola..... 317 | Mild..... 334 | Misleading..... 335 |
| Meekness..... 333 | Metacarpe..... 317 | Milder..... 334 | Misnomer..... 324 |
| Meerschauum..... 333 | Metacism..... 317 | Mildest..... 334 | Misnomist..... 324 |
| Meeting..... 333 | Metalloid..... 334 | Mildew..... 334 | Misplace..... 335 |
| Melancholy..... 316 | Metalepse..... 317 | Mildness..... 317 | Misprint..... 324 |
| Melanger..... 316 | Metallurgy..... 317 | Milepost..... 317 | Misrule..... 335 |
| Melient..... 316 | Metaphrase..... 317 | Milestone..... 317 | Missile..... 335 |
| Meliorated..... 316 | Metaphor..... 334 | Milkboy..... 321 | Missing..... 335 |
| Mellific..... 316 | Metaphysic..... 317 | *MILKCAN..... 258 | Mission..... 335 |
| Mellodious..... 316 | Meterage..... 317 | Milken..... 323 | Missionary..... 324 |
| Mellodist..... 316 | Meteor..... 334 | Milkiness..... 323 | Missive..... 324 |
| Mellophone..... 316 | Method..... 334 | Milkpail..... 323 | Misspend..... 335 |
| Mellow..... 333 | Methodic..... 334 | Millenium..... 323 | Mist..... 335 |
| Mellowness..... 316 | Methodist..... 334 | Millesimal..... 323 | Mistake..... 335 |
| Melody..... 333 | Methodize..... 334 | Milliard..... 323 | Mistaken..... 335 |
| Membership..... 316 | Metrical..... 334 | Milliner..... 323 | Mistily..... 324 |
| Memorate..... 316 | Metrififer..... 317 | Millinary..... 323 | Mistiness..... 324 |
| Memory..... 145 | Metronome..... 317 | Millitant..... 321 | Mistletoe..... 335 |
| Menagerie..... 316 | Mettle..... 334 | Millitated..... 331 | Mistreat..... 335 |
| Mendable..... 316 | Mettled..... 317 | Millpond..... 323 | Mistress..... 335 |
| Mendacity..... 316 | Meubler..... 317 | Milsey..... 323 | Mistrust..... 335 |
| Mendicancy..... 316 | Meutrir..... 317 | Mimetic..... 324 | Misty..... 324 |
| Meniscus..... 316 | Mew..... 334 | Mimery..... 324 | Misuse..... 335 |
| Menology..... 316 | Mewing..... 334 | Minacious..... 324 | Misused..... 335 |
| Mensonage..... 316 | Mexican..... 145 | Minaret..... 324 | Miter..... 335 |
| Mensurate..... 316 | Miasma..... 334 | Mincingly..... 324 | Mitigant..... 324 |
| Mentally..... 334 | Miasmal..... 334 | Mineralist..... 324 | Mitigate..... 335 |
| Mention..... 334 | Miasmatic..... 317 | Mineralogy..... 324 | Mitigatory..... 324 |
| Mentioned..... 334 | Miasmatist..... 317 | Mineration..... 324 | Mittraille..... 324 |
| Mentor..... 334 | Mice..... 145 | Mingler..... 324 | Mitten..... 335 |
| Mephitical..... 316 | Michael..... 496 | Miniature..... 324 | Mittimus..... 335 |
| Meprisant..... 316 | Microdon..... 317 | Ministrant..... 324 | Mix..... 335 |
| Mercantile..... 334 | Microlite..... 317 | Miniver..... 324 | Mixedly..... 324 |
| Mercenary..... 334 | Microscope..... 317 | Minority..... 324 | Mixing..... 335 |
| Mercer..... 334 | Mid..... 389 | Miocene..... 324 | Mixture..... 335 |
| Merchandise..... 334 | Midage..... 389 | Mirabelle..... 324 | Moan..... 335 |
| *MERCHANT..... 143 | Midcord..... 389 | Miraculous..... 324 | Moaned..... 335 |
| MERCHANT..... 334 | Midcourse..... 389 | Miradura..... 324 | Moanfully..... 324 |
| Merciful..... 334 | Midday..... 389 | Mirage..... 324 | Moaning..... 335 |
| Merciless..... 334 | *MIDDEN..... 389 | Mirlitot..... 324 | Moat..... 335 |
| Mercurial..... 316 | Midden..... 317 | Mirmidon..... 324 | Mob..... 335 |
| Mercury..... 334 | Middest..... 389 | Mirthless..... 324 | Mobbed..... 335 |
| Mercy..... 334 | Middle..... 389 | Misbehave..... 324 | Mobbing..... 335 |
| Merely..... 334 | Middling..... 334 | Miscellany..... 324 | Mobbish..... 324 |
| Merge..... 334 | Middlings..... 389 | Miscible..... 324 | Mobile..... 324 |
| Merged..... 334 | Midge..... 389 | Misclaim..... 324 | Mobility..... 335 |

*Trade Words in capitals are duplicated. Use prefix oo only when ordering goods applying to Trade Word in capitals.

TRADE WORD INDEX—Continued.

| Page | | Page | | Page | | Page | |
|-----------------|-----|-----------------|-----|-----------------|-----|-----------------|-----|
| Moccasin..... | 335 | Monologue..... | 328 | Mottled..... | 337 | Munching..... | 411 |
| Mock..... | 335 | Monopoly..... | 336 | Motto..... | 337 | Mundify..... | 338 |
| Mockable..... | 335 | Monotone..... | 328 | Mouchard..... | 330 | Municipal..... | 338 |
| Mocked..... | 335 | Monotonous..... | 328 | Moucheron..... | 330 | Munificent..... | 338 |
| Mockery..... | 326 | Monotony..... | 336 | Moufette..... | 330 | Munition..... | 339 |
| Mocking..... | 335 | Monsoon..... | 336 | Mouflon..... | 330 | Mural..... | 338 |
| Mockingly..... | 326 | Monstrous..... | 328 | Mould..... | 336 | Murenger..... | 338 |
| Modalist..... | 326 | Montanic..... | 328 | Mouldiness..... | 336 | Muriate..... | 338 |
| Model..... | 335 | Monthly..... | 337 | Moulding..... | 336 | Muriform..... | 338 |
| Modeled..... | 335 | Monument..... | 337 | Moulded..... | 336 | Murky..... | 338 |
| Modeling..... | 335 | Mood..... | 337 | Mound..... | 337 | Murmuring..... | 338 |
| Moderate..... | 335 | Moodily..... | 328 | Mount..... | 337 | MurRAIN..... | 353 |
| Moderation..... | 326 | Moonbeam..... | 328 | Mountain..... | 337 | Musard..... | 353 |
| Modern..... | 335 | Moonlight..... | 328 | Mountebank..... | 336 | Muscordine..... | 353 |
| Modernize..... | 335 | Moonshine..... | 328 | Mounting..... | 337 | Muscated..... | 353 |
| Modest..... | 335 | Moorish..... | 328 | Mourn..... | 337 | Muscular..... | 353 |
| Modestly..... | 335 | Moose..... | 337 | Mourner..... | 337 | Muse..... | 353 |
| Modicum..... | 326 | Mope..... | 337 | Mournful..... | 337 | Museful..... | 353 |
| Modificate..... | 326 | Moped..... | 337 | Mournfully..... | 337 | Museum..... | 353 |
| Modify..... | 336 | Moping..... | 337 | Mourning..... | 337 | Mushroom..... | 353 |
| Modillion..... | 326 | Mopish..... | 328 | Mouse..... | 337 | Musical..... | 353 |
| Modishness..... | 326 | Mopsical..... | 328 | Mouth..... | 337 | Music..... | 142 |
| Modulate..... | 336 | Morailon..... | 328 | Mouthed..... | 337 | Musk..... | 142 |
| Module..... | 336 | Moral..... | 337 | Mouthful..... | 338 | Mustard..... | 142 |
| Mogol..... | 143 | Moralist..... | 337 | Mouthless..... | 338 | Mutton..... | 140 |
| Mohair..... | 326 | Morality..... | 337 | Movable..... | 337 | Nabit..... | 276 |
| Moiety..... | 326 | Moralize..... | 337 | Moveless..... | 338 | Nablum..... | 276 |
| Moist..... | 336 | Morally..... | 337 | Movement..... | 337 | Nabob..... | 276 |
| Moisten..... | 336 | Morass..... | 337 | Moving..... | 337 | Nacarado..... | 353 |
| Moistening..... | 336 | Morbid..... | 337 | Mower..... | 338 | Nacarating..... | 353 |
| Moistness..... | 326 | Morbidly..... | 337 | Mowing..... | 338 | Nacelle..... | 353 |
| Moisture..... | 336 | Morbidness..... | 337 | Moyle..... | 338 | Nacido..... | 354 |
| Molar..... | 326 | Morbleau..... | 328 | Mucid..... | 338 | Naciente..... | 354 |
| Mold..... | 336 | Mordant..... | 337 | Mucidness..... | 296 | Nacimiento..... | 354 |
| Moldiness..... | 336 | Mordicant..... | 329 | Mucilage..... | 296 | Nacker..... | 276 |
| Mole..... | 143 | Mordiller..... | 329 | Mucite..... | 296 | Nadadero..... | 354 |
| Molecular..... | 326 | Moresque..... | 329 | Mucker..... | 284 | Nadrenas..... | 354 |
| Molest..... | 336 | Morgaustic..... | 329 | Muckle..... | 259 | Nafalio..... | 354 |
| Molested..... | 336 | Morgue..... | 142 | Mucosity..... | 259 | Nagement..... | 354 |
| Molinism..... | 326 | Morbund..... | 329 | Mucronate..... | 338 | Nagueres..... | 354 |
| Mollify..... | 336 | Mormon..... | 329 | Muculent..... | 338 | Nail..... | 129 |
| Mollusk..... | 327 | Morning..... | 337 | Mucus..... | 338 | Nailer..... | 354 |
| Molestate..... | 326 | Morose..... | 337 | Mud..... | 142 | Naiol..... | 443 |
| Molt..... | 336 | Moroseness..... | 329 | Muddler..... | 338 | Naissant..... | 355 |
| Molten..... | 336 | Morphine..... | 337 | Muddy..... | 338 | Naive..... | 443 |
| Molting..... | 336 | Morphology..... | 337 | Mudfish..... | 338 | Naivette..... | 443 |
| Moment..... | 336 | Morsel..... | 337 | Mudwort..... | 333 | Naivement..... | 355 |
| Momentary..... | 327 | Mortaise..... | 329 | Muffing..... | 338 | Naked..... | 129 |
| Momently..... | 336 | Mortal..... | 337 | Muggard..... | 338 | Nalgada..... | 357 |
| Momentous..... | 336 | Mortality..... | 337 | Mugient..... | 338 | Namesake..... | 357 |
| Monad..... | 336 | Mortar..... | 337 | Mulatress..... | 338 | Nankeen..... | 357 |
| Monarch..... | 336 | Mortgage..... | 337 | Mulberry..... | 393 | Napea..... | 357 |
| Monarchal..... | 336 | Mortgaged..... | 337 | Mulch..... | 393 | Napiform..... | 357 |
| Monarchy..... | 336 | Mortgaging..... | 337 | Mule..... | 393 | Napkin..... | 129 |
| Monastery..... | 336 | Mortify..... | 337 | Muleish..... | 393 | Naptha..... | 357 |
| Monastic..... | 336 | Mortifying..... | 337 | Mulishly..... | 393 | Narcotine..... | 357 |
| Monastical..... | 327 | Mortise..... | 337 | Muleteer..... | 338 | Narcotique..... | 357 |
| Moncean..... | 327 | Mortmain..... | 329 | Mullet..... | 338 | Narigon..... | 357 |
| Mondanite..... | 327 | Mortuary..... | 329 | Mulicate..... | 338 | Narizado..... | 357 |
| Money..... | 143 | Mosaic..... | 337 | Mullion..... | 338 | Narrable..... | 357 |
| Monger..... | 327 | Moses..... | 496 | Mullifoil..... | 338 | Narrow..... | 174 |
| Mongrel..... | 336 | Mosiness..... | 329 | Multiple..... | 338 | Narrowing..... | 357 |
| Monitor..... | 336 | Moslem..... | 337 | Multitude..... | 338 | Nasality..... | 357 |
| Monitorial..... | 328 | Mossy..... | 337 | Multum..... | 338 | Nasalement..... | 357 |
| Monitory..... | 328 | Mother..... | 337 | Mumble..... | 338 | Nasarder..... | 357 |
| Monk..... | 328 | Motherly..... | 337 | Mummer..... | 338 | Nascency..... | 357 |
| Monkey..... | 336 | Motion..... | 337 | Mumpish..... | 338 | Nasillard..... | 357 |
| Monkhood..... | 328 | Motionless..... | 329 | Mumps..... | 411 | Nastiness..... | 174 |
| Monkish..... | 336 | Motive..... | 337 | Munch..... | 411 | Nasturtium..... | 357 |
| Monogram..... | 336 | Motley..... | 337 | Muncher..... | 411 | Nasty..... | 357 |
| Monolith..... | 328 | Motmot..... | 330 | | | | |

TRADE WORD INDEX—Continued.

| Page | Page | Page | Page |
|---------------------|---------------------|--------------------|---------------------|
| Natation.....357 | Negotiate.....134 | Ninny.....366 | North.....190 |
| Nastatory.....357 | Negotiated.....134 | Nippingly.....366 | Northerner.....365 |
| Nateron.....357 | Negotiating.....148 | Nitouche.....366 | Northman.....365 |
| Nation.....223 | Negotiator.....148 | Nitrogen.....190 | Northward.....365 |
| National.....223 | Negraille.....358 | Nivelar.....366 | Nose.....367 |
| Nationally.....199 | Negress.....358 | Noble.....190 | *NOSEGAY.....135 |
| Native.....199 | Negrillion.....359 | Noblemen.....366 | Nosegay.....367 |
| Natively.....199 | Neighbor.....130 | Nobleness.....366 | Noseless.....365 |
| Nativeness.....199 | Neighing.....358 | Noctidial.....366 | Nosologist.....365 |
| Nativity.....220 | Nemalite.....358 | Noctivago.....366 | Nostalgia.....365 |
| Nathaniel.....496 | Nemophilla.....358 | Noctuary.....366 | Nostril.....367 |
| Natrolite.....357 | Nemoroso.....358 | Nocturnal.....366 | Nostrum.....367 |
| Nattily.....220 | Nenufar.....358 | Nocument.....366 | Notable.....367 |
| Natty.....220 | Neografo.....358 | Nodation.....366 | Notability.....365 |
| Natural.....115 | Neophyte.....358 | Nodder.....366 | Notador.....365 |
| Naturalist.....220 | Neoplastic.....358 | Nodding.....366 | Notch.....138 |
| Naturalize.....110 | Neoteric.....358 | Nodosity.....366 | Notched.....365 |
| Naturalized.....110 | Nepaulese.....358 | Nodrizza.....366 | Notebook.....365 |
| Naturally.....110 | Nephew.....130 | Nodular.....366 | Notedly.....365 |
| Nature.....115 | Nephralgia.....358 | Noggin.....368 | Noteworthy.....365 |
| Naufrage.....357 | Nephritic.....359 | Nogging.....368 | Noticeable.....365 |
| Naumache.....357 | Neptune.....157 | Nogueral.....366 | Notifier.....365 |
| Nauseanda.....357 | Nerprun.....359 | Noirceur.....366 | Notionist.....365 |
| Nauseating.....357 | Nerve.....157 | Noise.....368 | Notorial.....367 |
| Nauseously.....357 | Nerboisity.....359 | Noiseful.....368 | Notoriety.....365 |
| Nautilus.....357 | Nervous.....157 | Noiseless.....368 | Notorious.....365 |
| Nautique.....357 | Nescience.....359 | Noisily.....368 | Nouement.....365 |
| Naval.....21 | Nespera.....359 | Noisome.....368 | Nourriston.....365 |
| Navaja.....357 | Nethermost.....359 | Noisy.....368 | Nourriture.....365 |
| Navarchy.....357 | Nettle.....359 | Nomad.....368 | Nouveaute.....365 |
| Nave.....21 | Nettling.....359 | Nomadic.....366 | Novaculite.....365 |
| Navegaute.....357 | Nettoyage.....359 | Nomadie.....368 | Novator.....365 |
| Navicular.....357 | Network.....359 | Nomadize.....368 | Novelador.....365 |
| Navidenio.....398 | Neurotic.....359 | Nombrador.....366 | Novedad.....365 |
| Navigable.....21 | Neutral.....142 | Nombrant.....366 | Novelism.....365 |
| Navigate.....21 | Nevadilla.....359 | Nominal.....367 | Novellette.....365 |
| Navigated.....21 | Neverita.....360 | Nominate.....367 | Novel.....138 |
| Navigating.....21 | Neviscar.....360 | Nominated.....367 | Novelty.....365 |
| Navigation.....21 | Newly.....360 | Nominating.....367 | Novenary.....365 |
| Navigateur.....398 | Newsman.....360 | Nomination.....367 | Novendial.....365 |
| Nearness.....398 | News monger.....362 | Nominative.....367 | Novice.....371 |
| Neathered.....398 | Nexible.....362 | Nomografia.....366 | Novillers.....366 |
| Neatland.....400 | Niche.....362 | Nomothetic.....366 | Novilunar.....366 |
| Neaumoius.....398 | Nicholas.....496 | Nonagesime.....366 | Nowise.....366 |
| Nebula.....115 | Nicknack.....362 | Nonagon.....366 | Noxious.....371 |
| Nebuleuse.....357 | Nickname.....363 | Nonce.....366 | Noxiously.....371 |
| Nebulosity.....357 | Nicoline.....363 | Nonchalant.....366 | Noxiousness.....371 |
| Necessitous.....357 | Nicotine.....135 | Nonconform.....366 | Noyeau.....365 |
| Neck.....30 | Nictation.....363 | Nonenity.....366 | Nozzle.....365 |
| Neckcloth.....475 | Nidificat.....363 | Nonjurant.....366 | Nubarron.....365 |
| Necklace.....357 | Nidify.....366 | Nonpareil.....366 | Nubecita.....365 |
| Necktie.....357 | Nidulation.....366 | Nonplus.....366 | Nubiferous.....365 |
| Necrology.....357 | Niebla.....366 | Nonplussed.....366 | Nubilate.....367 |
| Necromancy.....357 | Nigauda.....366 | Nonsense.....365 | Nubosided.....367 |
| Necropolis.....357 | Nigglar.....366 | Nonsuit.....365 | Nucleiform.....367 |
| Nectar.....115 | Night.....190 | Nonsuiting.....365 | Nudamente.....368 |
| Nectarine.....400 | Nightcap.....366 | Nonsuch.....365 | Nudge.....371 |
| Needer.....400 | Nightfall.....366 | Nontronite.....365 | Nudity.....371 |
| Needle.....115 | Nighthag.....366 | Noodle.....367 | Nuegados.....368 |
| Needlessly.....400 | Nightlight.....366 | Nook.....365 | Nuestramo.....368 |
| Needlework.....407 | Nightshade.....366 | Noon.....190 | Nuevamente.....368 |
| Needment.....358 | Nighttime.....366 | Noonday.....367 | Nugacity.....368 |
| Negado.....358 | Nightscint.....366 | Nonging.....367 | Nugatory.....368 |
| Negation.....62 | Nihilism.....366 | Noonstead.....365 | *NUGGET.....138 |
| Negative.....62 | Nilometre.....366 | Noontide.....365 | Nugget.....368 |
| Neglectful.....142 | Nimble.....366 | Noose.....367 | Nuisance.....368 |
| Neglecting.....146 | Nimbleness.....366 | Nopalera.....365 | Nuitamment.....368 |
| Negligee.....358 | Ninety.....366 | Norabuena.....365 | Nullement.....368 |
| Negligence.....141 | Ninada.....366 | Normal.....367 | Nullified.....369 |
| Negligent.....141 | Ninepins.....366 | Noramala.....365 | Nullify.....258 |
| Neogamist.....358 | Ninero.....366 | Norman.....367 | Nullipore.....369 |

*Trade Words in capitals are duplicated. Use prefix oo only when ordering goods applying to Trade Word in capitals.

TRADE WORD INDEX—Continued.

| | Page | | Page | | Page | | Page |
|------------------|------|-----------------|------|------------------|------|-----------------|------|
| Numb..... | 139 | Obviation..... | 40 | Oenaoethal..... | 497 | Orchard..... | 171 |
| Number..... | 369 | Obvious..... | 103 | Oenology..... | 497 | Orchestra..... | 171 |
| Numberless..... | 369 | Obviously..... | 115 | Oer..... | 497 | Orchio..... | 171 |
| Numeration..... | 369 | Obvolute..... | 115 | Oestrus..... | 497 | Ordain..... | 171 |
| Numerique..... | 369 | Oca..... | 495 | Off..... | 497 | Ordeal..... | 171 |
| Numerist..... | 369 | Occasion..... | 495 | Offal..... | 102 | Orderly..... | 58 |
| Numerosity..... | 369 | Occident..... | 103 | Offend..... | 102 | Ordinal..... | 58 |
| Numerotage..... | 369 | Occidental..... | 103 | Offender..... | 102 | Ordinate..... | 58 |
| Numismatic..... | 369 | Oclude..... | 496 | Offense..... | 102 | Ordination..... | 58 |
| Nummular..... | 369 | Oclusion..... | 103 | Offensive..... | 102 | Oregon..... | 58 |
| Nummulite..... | 369 | Oculina..... | 497 | Officious..... | 130 | Organ..... | 134 |
| Nunciate..... | 369 | Occult..... | 104 | Office..... | 497 | Organist..... | 58 |
| Nundinary..... | 395 | Occulted..... | 115 | Officer..... | 130 | Organize..... | 58 |
| Nundinate..... | 395 | Occultness..... | 115 | Officiate..... | 470 | Orgies..... | 58 |
| Nunnery..... | 395 | *OCCUPANCY..... | 104 | Official..... | 130 | Oriel..... | 58 |
| Nursling..... | 369 | Occupancy..... | 115 | Officiating..... | 464 | Orient..... | 58 |
| Nurtured..... | 392 | Occupant..... | 104 | Officious..... | 130 | Oriental..... | 58 |
| Nustle..... | 394 | Occupate..... | 115 | Ofing..... | 130 | Orifice..... | 58 |
| Nutation..... | 369 | Occupy..... | 104 | Ogler..... | 130 | Origin..... | 58 |
| Nuthatch..... | 369 | Occupying..... | 115 | Ogress..... | 130 | Originate..... | 44 |
| Nutracker..... | 369 | Occur..... | 115 | Oiliness..... | 105 | Ornament..... | 44 |
| Nuthatch..... | 369 | Occuran..... | 496 | Oilcloth..... | 105 | Ornate..... | 44 |
| Nuthook..... | 388 | Occurrence..... | 104 | Ointment..... | 117 | Ornomet..... | 497 |
| Nutpecker..... | 369 | Occurrent..... | 115 | Olden..... | 117 | Orology..... | 44 |
| Nutritional..... | 369 | Occurse..... | 496 | Oldness..... | 142 | Orotund..... | 45 |
| Nutramental..... | 426 | *OCEAN..... | 115 | Oldish..... | 139 | Orphan..... | 45 |
| Nutrition..... | 426 | Ocean..... | 104 | Olive..... | 142 | Orphanage..... | 45 |
| Nutritious..... | 426 | Oceanic..... | 115 | Olympic..... | 141 | Orris..... | 45 |
| Nutritive..... | 426 | Ocellus..... | 496 | Omelet..... | 141 | Ortive..... | 45 |
| Nutshell..... | 369 | Ocher..... | 496 | Omen..... | 141 | Oscar..... | 497 |
| Nutting..... | 388 | Ochre..... | 104 | Ominous..... | 144 | Oscillate..... | 37 |
| Nymph..... | 149 | Ochrey..... | 496 | Omnibus..... | 143 | Ossify..... | 8 |
| Nymphical..... | 440 | Octact..... | 496 | Omnific..... | 149 | Ossuary..... | 8 |
| Nymphish..... | 440 | Octagon..... | 104 | Onerary..... | 145 | Ostensive..... | 8 |
| Nymphlike..... | 369 | Octagonal..... | 115 | Onerous..... | 134 | Othello..... | 129 |
| Oak..... | 139 | Octrander..... | 496 | Onion..... | 171 | Otho..... | 497 |
| Oar..... | 14 | Octaroon..... | 139 | Onset..... | 171 | Ottoman..... | 37 |
| Oasis..... | 21 | Octastyle..... | 496 | Onslaught..... | 171 | Outbid..... | 37 |
| Oats..... | 139 | Octave..... | 496 | Onward..... | 171 | Outbound..... | 37 |
| Obelisk..... | 21 | Octavius..... | 496 | Onyx..... | 172 | Outbreak..... | 37 |
| Obey..... | 24 | Octic..... | 496 | Ooze..... | 172 | Outbuild..... | 37 |
| Obit..... | 24 | Octile..... | 496 | Opacity..... | 198 | Outburst..... | 37 |
| Objugate..... | 24 | October..... | 115 | Opaque..... | 201 | Outcast..... | 37 |
| Obliquety..... | 25 | Octochord..... | 497 | Openly..... | 201 | Outcome..... | 37 |
| Obliterate..... | 134 | Octroi..... | 497 | Operate..... | 202 | Outcrop..... | 37 |
| Oblivion..... | 135 | Octuple..... | 115 | Operation..... | 203 | Outcry..... | 37 |
| Obole..... | 25 | *OCULAR..... | 115 | Operative..... | 203 | Outdo..... | 37 |
| Observe..... | 388 | Ocular..... | 60 | Opiate..... | 205 | Outgrow..... | 37 |
| Observer..... | 25 | Ocularly..... | 115 | Opinion..... | 205 | Outguard..... | 37 |
| Observing..... | 25 | Oculate..... | 115 | Opium..... | 220 | Outhouse..... | 37 |
| Observingly..... | 388 | Oculist..... | 104 | Opponent..... | 220 | Outlaw..... | 37 |
| Obsess..... | 388 | Odd..... | 497 | Opportune..... | 220 | Outlive..... | 37 |
| Obsidian..... | 388 | Oddeon..... | 105 | Oppose..... | 87 | Outlook..... | 37 |
| Obsignate..... | 388 | Oddity..... | 104 | Opposition..... | 87 | Outlying..... | 37 |
| Obstacle..... | 69 | Odize..... | 497 | Oppress..... | 87 | Outmarch..... | 37 |
| Obstinacy..... | 69 | Oddly..... | 115 | Oppression..... | 87 | Outmeasure..... | 91 |
| Obstinate..... | 69 | Oddness..... | 115 | Optic..... | 139 | Outpost..... | 91 |
| Obstruct..... | 69 | *ODDNESS..... | 105 | Optical..... | 159 | Outpour..... | 43 |
| Obstruction..... | 69 | Odious..... | 105 | Optician..... | 163 | Outrage..... | 42 |
| Obtainable..... | 69 | Odiously..... | 116 | Optimate..... | 163 | Outride..... | 14 |
| Obtained..... | 69 | Odiousness..... | 105 | Optimism..... | 163 | Outtrigger..... | 14 |
| Obtrude..... | 69 | Odium..... | 105 | Option..... | 171 | Outright..... | 14 |
| Obtruse..... | 103 | Odometer..... | 105 | Optional..... | 171 | Outrun..... | 14 |
| Obtrusely..... | 103 | Odor..... | 102 | Orace..... | 171 | Outsell..... | 14 |
| Obtruseness..... | 103 | Odorine..... | 497 | Oral..... | 136 | Outside..... | 14 |
| Obtrusion..... | 69 | Odorless..... | 116 | Orange..... | 171 | Outsider..... | 14 |
| Obverse..... | 103 | Odorous..... | 102 | Oration..... | 171 | Outskirt..... | 14 |
| *OBVIATE..... | 40 | Odorously..... | 116 | Orator..... | 171 | Outspread..... | 15 |
| Obviate..... | 115 | Odye..... | 497 | Oratory..... | 171 | Outstand..... | 15 |
| Obviated..... | 115 | Oecoid..... | 497 | Orb..... | 171 | Outstretch..... | 15 |
| Obviating..... | 115 | Oedema..... | 497 | Orbit..... | 171 | Outstrip..... | 15 |

Trade Words in capitals are duplicated. Use prefix oo only when ordering goods applying to Trade Word in capitals.

TRADE WORD INDEX—Continued.

| | Page | | Page | | Page | | Page |
|------------------|------|-----------------|------|------------------|------|------------------|------|
| Outtalk..... | 15 | Pandect..... | 413 | Parry..... | 412 | Payment..... | 33 |
| Outvote..... | 15 | Pandemic..... | 413 | Parse..... | 415 | *PEACE..... | 34 |
| Outwalk..... | 15 | Pander..... | 413 | Parsing..... | 415 | Peace..... | 111 |
| Outward..... | 15 | Panderly..... | 413 | Parsley..... | 415 | Peaceable..... | 34 |
| Outwardly..... | 15 | Pandore..... | 22 | Parsnip..... | 415 | Peaceful..... | 34 |
| Outwatch..... | 15 | Pane..... | 22 | Parson..... | 415 | Peacemaker..... | 34 |
| Outwear..... | 15 | *PANEL..... | 22 | Parsonage..... | 415 | Peach..... | 34 |
| Outweigh..... | 15 | Panel..... | 110 | Part..... | 415 | Peacock..... | 34 |
| Outwill..... | 15 | *PANG..... | 22 | Partable..... | 415 | *PEAK..... | 34 |
| Outwork..... | 15 | Pang..... | 110 | Partage..... | 415 | Peak..... | 111 |
| Ovate..... | 15 | Panorama..... | 22 | *PARTAKE..... | 21 | Peaked..... | 34 |
| Ovation..... | 15 | *PANIC..... | 22 | Partake..... | 415 | Peanut..... | 34 |
| Oven..... | 15 | Panic..... | 110 | Partaking..... | 415 | Pear..... | 34 |
| Overact..... | 15 | Pansy..... | 22 | Partial..... | 415 | Pearl..... | 35 |
| Overawe..... | 15 | Panter..... | 398 | Partible..... | 415 | Peasant..... | 35 |
| Overbalance..... | 15 | Pantess..... | 398 | Particle..... | 415 | Peat..... | 35 |
| Overbear..... | 15 | *PANTHER..... | 22 | Partley..... | 109 | Pebble..... | 35 |
| Overbid..... | 15 | Panther..... | 407 | Parting..... | 415 | Peck..... | 419 |
| Overboard..... | 15 | Pantheon..... | 23 | Partisan..... | 415 | Pecked..... | 419 |
| Overburden..... | 15 | Pantile..... | 407 | Partridge..... | 248 | Pecking..... | 419 |
| Overcast..... | 15 | Panto..... | 110 | Party..... | 111 | Peckle..... | 419 |
| Overcoat..... | 16 | Pantofle..... | 407 | Pass..... | 111 | Pectate..... | 419 |
| Overcome..... | 16 | Pantomime..... | 23 | Passable..... | 248 | Pecten..... | 419 |
| Overdo..... | 16 | Pantry..... | 23 | Passage..... | 248 | Pectinal..... | 419 |
| Overdose..... | 16 | *PAPACY..... | 23 | Passenger..... | 248 | Pectinate..... | 419 |
| Overflow..... | 16 | Papacy..... | 392 | Pas-ing..... | 248 | Pectination..... | 419 |
| Overgrow..... | 16 | Papal..... | 23 | Passion..... | 248 | Pectoral..... | 419 |
| Overhang..... | 16 | Paper..... | 23 | Passionate..... | 248 | Peculate..... | 419 |
| Overhead..... | 16 | Papist..... | 23 | Passive..... | 249 | Peculating..... | 419 |
| Overhand..... | 16 | Pappoose..... | 23 | Passively..... | 249 | Peculation..... | 419 |
| Overlook..... | 16 | Papyrus..... | 436 | Passiveness..... | 249 | Peculator..... | 419 |
| Overloud..... | 15 | Parable..... | 23 | Passport..... | 249 | Peculiar..... | 419 |
| Oversee..... | 18 | Parade..... | 23 | Password..... | 249 | Peculiarity..... | 420 |
| Overt..... | 19 | Paradise..... | 23 | Pastil..... | 249 | Peculium..... | 420 |
| Overtake..... | 19 | *PARAGON..... | 23 | Pastime..... | 249 | Pecuniary..... | 420 |
| Overture..... | 19 | Paragon..... | 409 | Pastor..... | 249 | Pecunious..... | 420 |
| Owl..... | 129 | Paragram..... | 226 | Pastoral..... | 249 | Pedal..... | 35 |
| Owler..... | 20 | *PAGRAM..... | 23 | Pastorate..... | 249 | Pedant..... | 35 |
| Owlet..... | 20 | Paragraph..... | 226 | Pastry..... | 249 | Pedantic..... | 420 |
| Owling..... | 20 | Parallax..... | 226 | Pasture..... | 249 | Pedantize..... | 420 |
| Owlsh..... | 20 | Parallel..... | 23 | *PATCH..... | 111 | Pedantry..... | 420 |
| Own..... | 20 | Paralysis..... | 25 | Patch..... | 249 | Pedarian..... | 420 |
| Owner..... | 20 | *PARAMOUNT..... | 24 | Patent..... | 249 | Pedate..... | 420 |
| Oxalic..... | 20 | Paramount..... | 226 | *PATH..... | 111 | Peddler..... | 25 |
| Oxidate..... | 20 | Parasite..... | 24 | Path..... | 249 | Peddling..... | 420 |
| Oxide..... | 20 | Parasol..... | 24 | Pathetic..... | 249 | Pedestal..... | 420 |
| Oxygen..... | 43 | Parboil..... | 24 | Pathos..... | 249 | Pedestrian..... | 35 |
| Oyer..... | 43 | Parcel..... | 26 | Pathway..... | 249 | Pedigree..... | 35 |
| Oyster..... | 22 | Pard..... | 427 | Patience..... | 249 | Pediment..... | 35 |
| Ozone..... | 22 | *PARDON..... | 26 | Patiently..... | 249 | Peel..... | 35 |
| *PACE..... | 63 | Pardon..... | 427 | Patrick..... | 497 | Peer..... | 111 |
| Pace..... | 129 | Pardoner..... | 427 | Patriot..... | 249 | Peerage..... | 35 |
| Pad..... | 129 | Pare..... | 427 | Patriotic..... | 27 | Peerless..... | 35 |
| Page..... | 129 | Pared..... | 427 | Patristic..... | 27 | Peevish..... | 36 |
| Pagoda..... | 110 | Paregoric..... | 427 | Patron..... | 26 | Peevishly..... | 36 |
| Pain..... | 110 | *PARENT..... | 26 | Patronage..... | 26 | Pellet..... | 36 |
| Paint..... | 110 | Parent..... | 427 | Patronize..... | 26 | Peltry..... | 36 |
| Palm..... | 110 | Parentage..... | 26 | Paul..... | 497 | Penal..... | 36 |
| Palsy..... | 110 | *PARENTAL..... | 24 | Pauper..... | 33 | Penalty..... | 36 |
| Paltry..... | 33 | Parental..... | 427 | Pauperism..... | 33 | Penance..... | 36 |
| *PAMPHLET..... | 22 | Paring..... | 25 | Paver..... | 33 | Penant..... | 36 |
| Pamphlet..... | 413 | Parish..... | 24 | Pavilion..... | 33 | Pencil..... | 36 |
| Pempre..... | 413 | Parity..... | 25 | Paving..... | 33 | Pendant..... | 36 |
| Pan..... | 22 | Parlance..... | 25 | Paw..... | 33 | Pending..... | 36 |
| Panacea..... | 22 | Parley..... | 21 | *PAWN..... | 33 | Pendulum..... | 36 |
| Panada..... | 394 | Parliament..... | 21 | Pawn..... | 111 | Penetrate..... | 36 |
| Panado..... | 22 | Parlor..... | 21 | Pawner..... | 33 | Penitent..... | 36 |
| Panary..... | 413 | Parole..... | 412 | Pawpaw..... | 436 | Penman..... | 36 |
| Pancake..... | 413 | Parotid..... | 412 | Pay..... | 33 | Penniless..... | 36 |
| Panch..... | 413 | Paroxysm..... | 412 | Payable..... | 33 | Pension..... | 36 |
| *PANDECT..... | 22 | Parrot..... | 412 | | | Pensive..... | 36 |

*Trade Words in capitals are duplicated. Use prefix oo only when ordering goods applying to Trade Word in capitals.

TRADE WORD INDEX—Continued.

| | Page | | Page | | Page | | Page |
|--------------------|------|----------------------|------|--------------------|------|-------------------|------|
| Pensively..... | 426 | Perriwinkle..... | 45 | Petit..... | 53 | Photometry..... | 115 |
| Penstock..... | 426 | Persecute..... | 41 | Petition..... | 53 | Phrase..... | 115 |
| Pentagon..... | 426 | Persecution..... | 41 | Petitionary..... | 53 | Phraseology..... | 115 |
| Pentagraph..... | 426 | Persecutor..... | 41 | Petitioner..... | 53 | Phrenitic..... | 53 |
| Pentameter..... | 426 | Perseverance..... | 41 | Petrescent..... | 53 | Phrenology..... | 53 |
| Pentecost..... | 426 | Persevere..... | 41 | Petrification..... | 53 | Phrenologist..... | 53 |
| Penthouse..... | 426 | Persiflage..... | 41 | Petrify..... | 53 | Phrensy..... | 53 |
| Pentice..... | 426 | Persist..... | 42 | Petroleum..... | 53 | Physic..... | 53 |
| Pentile..... | 426 | Persistence..... | 42 | Petrous..... | 53 | Physics..... | 54 |
| Pentroof..... | 426 | Persistency..... | 42 | Petticoat..... | 53 | Physical..... | 53 |
| Penult..... | 426 | Persistent..... | 42 | Pettily..... | 53 | Physically..... | 53 |
| Penumbra..... | 437 | Person..... | 42 | Pettiness..... | 53 | Physician..... | 53 |
| Penurious..... | 36 | Personable..... | 42 | Pettish..... | 53 | Physique..... | 54 |
| Penury..... | 36 | Personage..... | 42 | Pettishly..... | 53 | Pianist..... | 54 |
| Perceptible..... | 38 | *PERSONAL..... | 31 | Pettishness..... | 53 | Piano..... | 54 |
| Perception..... | 38 | Personal..... | 42 | Pettitoes..... | 53 | Piazza..... | 54 |
| *PERCH..... | 38 | Personality..... | 31 | Petty..... | 53 | Picador..... | 54 |
| Perch..... | 111 | Personality..... | 42 | Petulance..... | 53 | Picayune..... | 54 |
| Percy..... | 497 | Personate..... | 31 | Petulant..... | 53 | Pickaxe..... | 54 |
| Perdition..... | 38 | Personation..... | 31 | Petunia..... | 53 | Picked..... | 54 |
| Perfect..... | 38 | Personator..... | 31 | Pew..... | 53 | Pickedness..... | 54 |
| Perfective..... | 38 | Personification..... | 31 | Pewter..... | 53 | Pickrell..... | 54 |
| Perforate..... | 38 | Personify..... | 31 | Phaeton..... | 53 | Picket..... | 54 |
| Perforation..... | 38 | Perspective..... | 31 | Phantasm..... | 53 | Picking..... | 54 |
| Perform..... | 38 | Perspectively..... | 31 | Phantom..... | 53 | Pickle..... | 54 |
| Perfume..... | 38 | Perspire..... | 31 | Pharisee..... | 53 | Pickpocket..... | 54 |
| Perfumery..... | 38 | Persuadable..... | 52 | Pharmacist..... | 53 | Pickwick..... | 54 |
| Perfuse..... | 38 | Persuader..... | 52 | Pharmacy..... | 53 | Picnic..... | 54 |
| Perfusive..... | 38 | Persuasion..... | 52 | Pharynx..... | 53 | Pictorial..... | 54 |
| Perhaps..... | 38 | Persuasive..... | 52 | Phase..... | 53 | Picture..... | 54 |
| *PERIL..... | 38 | Persuasively..... | 52 | Phasis..... | 53 | Picturesque..... | 54 |
| Peril..... | 111 | Persuasiveness..... | 52 | Phasant..... | 53 | Piebald..... | 54 |
| Perilous..... | 38 | *PERT..... | 52 | Phenominal..... | 53 | Piecemeal..... | 54 |
| Periodic..... | 44 | Pert..... | 111 | Phenomenon..... | 53 | Pier..... | 54 |
| Periodically..... | 45 | Pertain..... | 52 | Pneumatic..... | 91 | Pierce..... | 54 |
| Periodicity..... | 45 | Perterpense..... | 53 | Pneumatical..... | 91 | Pierceable..... | 54 |
| Perish..... | 45 | Pertinacious..... | 52 | Phial..... | 53 | Pierglass..... | 54 |
| Perishable..... | 45 | Pertinacity..... | 49 | Phlander..... | 53 | Pierian..... | 54 |
| Peristyle..... | 45 | Pertly..... | 49 | Philanthropic..... | 53 | Pietism..... | 54 |
| Periwig..... | 45 | Pertinent..... | 49 | Philanthropy..... | 48 | Pietist..... | 54 |
| Perjure..... | 45 | Pertinently..... | 49 | Philharmonic..... | 48 | Piety..... | 54 |
| Perjury..... | 45 | Perturb..... | 49 | Philippic..... | 48 | Pigeon..... | 54 |
| Perk..... | 39 | Perturbation..... | 49 | Philologist..... | 48 | Piggery..... | 54 |
| Permanence..... | 39 | Pertusion..... | 49 | Philological..... | 48 | Piggin..... | 54 |
| Permanency..... | 39 | Peruse..... | 51 | Philologist..... | 48 | Pigment..... | 54 |
| Permanent..... | 39 | Pervade..... | 50 | Philology..... | 48 | Pigmy..... | 54 |
| Permanently..... | 39 | Pervasion..... | 50 | Philomath..... | 48 | Pike..... | 54 |
| Permeable..... | 39 | Perverse..... | 108 | Philomathy..... | 60 | Pilfer..... | 54 |
| Permeate..... | 39 | Perversely..... | 108 | Philomel..... | 60 | Pilferer..... | 54 |
| Permeation..... | 39 | Perverseness..... | 108 | Philomena..... | 60 | Pilgrim..... | 54 |
| Permiscible..... | 39 | Pervasive..... | 108 | Philosopher..... | 60 | Pilgrimage..... | 63 |
| Permission..... | 39 | Pervert..... | 108 | Philosophic..... | 60 | Pillaged..... | 48 |
| Permissive..... | 39 | Pervertible..... | 108 | Philosophist..... | 60 | Pillar..... | 59 |
| Permissively..... | 39 | Pervious..... | 108 | Philosophize..... | 60 | Pillars..... | 59 |
| Permit..... | 40 | Pesky..... | 53 | Philosophy..... | 60 | Pilliger..... | 59 |
| Permittance..... | 40 | *PEST..... | 53 | Philter..... | 60 | Pillion..... | 59 |
| Permitation..... | 40 | Pest..... | 111 | Phiz..... | 60 | Pillory..... | 59 |
| Pernicious..... | 40 | Pester..... | 53 | Phlegmatic..... | 60 | Pilose..... | 59 |
| Peroration..... | 40 | Pestile..... | 53 | Phlogistic..... | 60 | Pilot..... | 59 |
| Perpendicular..... | 40 | Pestilence..... | 53 | Phlox..... | 60 | Pilotage..... | 17 |
| Perpetration..... | 40 | Pestilent..... | 53 | Phonetic..... | 60 | Pimenta..... | 17 |
| Perpetrators..... | 40 | Pet..... | 53 | Phonetist..... | 60 | Pimpled..... | 17 |
| Perpetual..... | 40 | *I ETAL..... | 53 | Phonograph..... | 66 | Pin..... | 23 |
| Perpetually..... | 40 | Petal..... | 111 | Phonographic..... | 66 | Pinafore..... | 23 |
| Perpetuate..... | 40 | Petaloid..... | 53 | Phonography..... | 66 | Pincase..... | 23 |
| Perpetuation..... | 41 | Petard..... | 53 | Phonology..... | 66 | Pincers..... | 23 |
| Perpetuity..... | 41 | Peter..... | 497 | Phonotype..... | 115 | Pinch..... | 23 |
| Perplex..... | 41 | Petral..... | 53 | Phosphorous..... | 67 | Pinchback..... | 23 |
| Perplexedly..... | 41 | Petiolar..... | 53 | Phosphate..... | 111 | Pincushion..... | 33 |
| Perplexity..... | 41 | Petiolate..... | 53 | Phosphorate..... | 111 | Pindarus..... | 99 |
| Perquisite..... | 41 | Petiole..... | 53 | Phosphoric..... | 111 | Pineapply..... | 109 |

*Trade Words in capitals are duplicated. Use prefix oo only when ordering goods applying to Trade Words in capitals.

TRADE WORD INDEX—Continued.

| | Page | | Page | | Page | | Page |
|------------------|------|-------------------|------|------------------|------|------------------|------|
| Pinmoney..... | 109 | Platform..... | 95 | Plunge..... | 90 | Poorly..... | 54 |
| Pinnacle..... | 32 | Platina..... | 95 | Pluralist..... | 90 | Popish..... | 54 |
| Pinnance..... | 32 | Platinum..... | 95 | Plurality..... | 90 | Poplitic..... | 85 |
| Pinnate..... | 51 | Platitude..... | 95 | Plurally..... | 91 | Populace..... | 85 |
| Pioneer..... | 30 | Platonic..... | 96 | Plush..... | 91 | Popular..... | 85 |
| Piously..... | 30 | Platonical..... | 94 | Plutonic..... | 91 | Popularity..... | 85 |
| Piper..... | 30 | Platonism..... | 94 | Pluvius..... | 91 | Popularize..... | 85 |
| Piping..... | 67 | Platonist..... | 94 | Poach..... | 91 | Populate..... | 85 |
| Pippin..... | 67 | Platonize..... | 94 | Poacher..... | 91 | Population..... | 85 |
| Piquancy..... | 30 | Platoon..... | 94 | Pocket..... | 91 | Populous..... | 85 |
| Piquant..... | 30 | Platter..... | 94 | Poem..... | 90 | Porch..... | 85 |
| Piracy..... | 98 | Plaudit..... | 94 | Poetess..... | 90 | Porcine..... | 85 |
| Pirate..... | 98 | Plausible..... | 94 | Poetic..... | 91 | Porcupine..... | 85 |
| Piratical..... | 97 | Plausibility..... | 94 | Poetics..... | 90 | Pore..... | 85 |
| Piroque..... | 98 | Plausible..... | 84 | Poetical..... | 90 | Porism..... | 85 |
| Piston..... | 66 | Player..... | 84 | Poetically..... | 90 | Porker..... | 85 |
| Pit..... | 66 | Playful..... | 84 | Poetize..... | 90 | Porosity..... | 85 |
| Pitch..... | 66 | Playfully..... | 84 | Poetry..... | 90 | Porpoise..... | 61 |
| Pitcher..... | 66 | Playmate..... | 84 | Point..... | 90 | Porridge..... | 61 |
| Pitchfork..... | 66 | Plea..... | 84 | Pointed..... | 90 | Portend..... | 93 |
| Piteous..... | 66 | Pleable..... | 86 | Pointedly..... | 90 | Portentous..... | 93 |
| Piteously..... | 66 | Pleader..... | 84 | Pointer..... | 90 | Portfolio..... | 93 |
| Pitfall..... | 66 | Pleasant..... | 84 | Pointless..... | 90 | Portico..... | 93 |
| Pithily..... | 66 | Pleasantly..... | 84 | Poise..... | 90 | Portion..... | 93 |
| Pithless..... | 66 | Please..... | 84 | Poisoner..... | 92 | Portionless..... | 93 |
| Pitiful..... | 57 | Pleasing..... | 84 | Poisonous..... | 92 | Portliness..... | 93 |
| Pitiless..... | 57 | Pleasurable..... | 84 | Poker..... | 92 | *PORTLY..... | 109 |
| Pitman..... | 57 | Pleasure..... | 84 | Polarity..... | 92 | Portly..... | 409 |
| Pitsan..... | 57 | Pledge..... | 84 | Polarize..... | 92 | Portray..... | 64 |
| Pittance..... | 57 | Pledger..... | 84 | Policy..... | 98 | Portress..... | 64 |
| Pituitary..... | 57 | Pledget..... | 84 | Polish..... | 97 | Pose..... | 64 |
| Pituitious..... | 57 | Pleiad..... | 84 | Polisher..... | 97 | Position..... | 64 |
| Pivet..... | 67 | Plema..... | 84 | Polishing..... | 97 | Positive..... | 64 |
| Placability..... | 67 | Pleonasm..... | 84 | Politely..... | 99 | Postiveness..... | 64 |
| Placable..... | 67 | Plenary..... | 84 | Politeness..... | 99 | Possess..... | 64 |
| Placard..... | 67 | Plenitude..... | 84 | Politer..... | 97 | Possessing..... | 64 |
| Placid..... | 67 | Plenteous..... | 84 | Politic..... | 99 | Possession..... | 64 |
| Placidity..... | 59 | Plentiful..... | 84 | Political..... | 99 | Possessor..... | 64 |
| Placidness..... | 59 | Pleurisy..... | 84 | Politician..... | 99 | Post..... | 64 |
| Placticity..... | 95 | Pleuritic..... | 84 | Politics..... | 99 | Postboy..... | 97 |
| Plagiarism..... | 59 | Pleuvial..... | 91 | Polity..... | 99 | Postchaise..... | 97 |
| Plagiarize..... | 59 | Pliancy..... | 86 | Polka..... | 99 | Posteatry..... | 92 |
| Plagiary..... | 59 | Pliant..... | 86 | Pollen..... | 99 | Posthaste..... | 93 |
| Plague..... | 59 | Plicate..... | 86 | Polliwog..... | 99 | Postillion..... | 93 |
| Plaid..... | 59 | Plight..... | 86 | Pollock..... | 99 | Posting..... | 96 |
| Plainly..... | 59 | Plighter..... | 86 | Pollute..... | 99 | Postpone..... | 12 |
| Plainness..... | 59 | Plinth..... | 87 | Polluter..... | 99 | Postscript..... | 12 |
| Plaintness..... | 86 | Pliocene..... | 87 | Pollution..... | 99 | Postulate..... | 12 |
| Plaint..... | 59 | Plod..... | 87 | Poltron..... | 99 | Posture..... | 12 |
| Plaintiff..... | 59 | Plodder..... | 87 | Polygamist..... | 60 | Potation..... | 12 |
| Plaintive..... | 59 | Plough..... | 88 | Polyglot..... | 60 | Potend..... | 111 |
| Plait..... | 59 | Plougher..... | 88 | Polygram..... | 60 | Potentate..... | 12 |
| Plan..... | 59 | Ploughman..... | 88 | Pomace..... | 60 | Potion..... | 12 |
| Planet..... | 59 | Ploughman..... | 88 | Pomaceous..... | 60 | Poultry..... | 12 |
| Planetary..... | 59 | Pluck..... | 88 | Pomatune..... | 60 | Pounce..... | 12 |
| Planish..... | 59 | Plucky..... | 88 | Pommel..... | 52 | Pouncing..... | 12 |
| Plank..... | 83 | Plumage..... | 88 | Pomp..... | 52 | Poundage..... | 12 |
| Planner..... | 83 | Plumase..... | 89 | Pomposity..... | 56 | Pounded..... | 12 |
| Plantain..... | 83 | Plumbago..... | 88 | Pompous..... | 56 | Poverty..... | 12 |
| Plantation..... | 65 | Plumbean..... | 88 | Pompously..... | 56 | Powder..... | 12 |
| Planter..... | 65 | Plumber..... | 88 | Pompousness..... | 55 | Powerful..... | 12 |
| Planticle..... | 65 | Plumbing..... | 89 | Ponder..... | 55 | Powerless..... | 12 |
| Plash..... | 65 | Plume..... | 89 | Ponderous..... | 55 | Practical..... | 12 |
| Plaster..... | 65 | Plumet..... | 89 | Pongee..... | 55 | Practice..... | 12 |
| Plasterer..... | 95 | Plumiped..... | 89 | Poniard..... | 55 | Practicing..... | 12 |
| Plastering..... | 95 | Plump..... | 89 | Pontage..... | 55 | Praised..... | 12 |
| Plastic..... | 95 | Plumper..... | 90 | Pontiff..... | 55 | Praising..... | 12 |
| Plastron..... | 95 | Plumply..... | 90 | Pontoon..... | 54 | Prance..... | 12 |
| Plat..... | 95 | Plumpness..... | 90 | Poodle..... | 54 | Prancing..... | 154 |
| Plateau..... | 95 | Plunder..... | 90 | Pool..... | 54 | Prate..... | 154 |
| Plateful..... | 95 | Plunderer..... | 90 | Poor..... | 54 | Prating..... | 154 |

*Trade Words in capitals are duplicated. Use prefix oo only when ordering goods applying to Trade Words in capitals.

TRADE WORD INDEX—Continued.

| | Page | | Page | | Page | | Page |
|---------------------|------|---------------------|------|-------------------|------|------------------|------|
| Prattle | 154 | Preparation | 244 | Quarto | 128 | Rage | 124 |
| Prattling | 154 | Preparatory | 244 | Quartz | 128 | Ragged | 124 |
| Prayer | 154 | Prepare | 244 | Quaver | 128 | Ragout | 124 |
| Preach | 154 | Prepay | 244 | Quay | 128 | Raid | 124 |
| Preaching | 154 | Prepayment | 244 | Queachy | 128 | Railer | 124 |
| Preamble | 154 | Prepense | 244 | Queasy | 128 | Railing | 124 |
| Prebend | 154 | Preposition | 244 | Queen | 128 | Raillery | 124 |
| Precarious | 154 | Prepositive | 244 | Queerly | 59 | Railroad | 124 |
| Precative | 154 | Prepossession | 244 | Queerness | 59 | Railway | 124 |
| Precautious | 154 | Prepossessing | 256 | Quell | 59 | Raiment | 124 |
| Precede | 154 | Prepossession | 256 | Quelled | 116 | Rain | 124 |
| Precentor | 154 | Preposterous | 256 | Quelling | 116 | Rainbow | 259 |
| Precession | 183 | Presage | 244 | Quench | 258 | Rained | 124 |
| Precinct | 183 | Prescience | 244 | Quenched | 258 | Raining | 124 |
| Precious | 183 | Prescribe | 244 | Quenching | 258 | Rainy | 259 |
| Precipice | 183 | Prescription | 256 | Query | 258 | Raipier | 260 |
| Precipitance | 183 | Present | 244 | Quickstep | 47 | Raise | 259 |
| Precipitate | 183 | Presentiment | 256 | Quiescent | 47 | Raisin | 259 |
| Precipitous | 183 | Presently | 244 | Quiet | 47 | Raising | 259 |
| Precise | 183 | Preserve | 244 | Quietest | 47 | Rajah | 259 |
| Preciseness | 183 | Preserved | 256 | Quietly | 47 | Rake | 259 |
| Precision | 183 | Preserver | 256 | Quietness | 47 | Raked | 259 |
| Preclude | 183 | Preserving | 256 | Quilling | 107 | Raking | 259 |
| Preclusion | 183 | Presided | 256 | Quilt | 107 | Rakish | 259 |
| Precocious | 183 | Presidency | 256 | Quilted | 107 | Ralled | 259 |
| Preconceit | 183 | President | 256 | Quilting | 107 | Rallies | 259 |
| Preconceive | 183 | Presiding | 256 | Quince | 107 | Ralling | 259 |
| Precocity | 183 | Presignify | 315 | Quinine | 107 | Rally | 259 |
| Precursive | 183 | Prevail | 444 | Quincy | 107 | Ralph | 497 |
| Predecessor | 183 | Prevailed | 444 | Quintal | 107 | Ram | 259 |
| Predial | 46 | Prevailing | 444 | Quinted | 107 | Ramble | 8 |
| Predicate | 192 | Prod | 111 | Quintile | 107 | Rambled | 259 |
| Predic | 192 | Quack | 100 | Quintillion | 107 | Rambling | 259 |
| Predispose | 192 | Quackery | 100 | Quintuple | 107 | Rambler | 259 |
| Preeminence | 191 | Quackish | 100 | Quip | 107 | Ramify | 259 |
| Preemption | 191 | Quadrant | 100 | Quire | 107 | Rammed | 259 |
| Prefatory | 191 | Quadrangle | 101 | Quirk | 107 | Rammer | 259 |
| Prefect | 191 | Quadrille | 101 | Quitclaim | 106 | Ramming | 259 |
| Prefer | 191 | Quadron | 101 | Quite | 106 | Rammish | 259 |
| Preferable | 244 | Quadruped | 101 | Quiver | 106 | Ramose | 259 |
| Preference | 244 | Quadruple | 101 | Quixotic | 106 | Rampage | 259 |
| Preferment | 244 | Quaff | 101 | Quoit | 106 | Rampancy | 259 |
| Preferred | 191 | Quaggy | 62 | Quota | 106 | Rampart | 259 |
| Prefering | 191 | Quagmire | 62 | Quotable | 106 | Ramrod | 259 |
| Prefix | 244 | Quail | 126 | Quoth | 106 | Ran | 259 |
| Prejudge | 154 | Quaint | 126 | Quotient | 106 | Ranch | 259 |
| Prejudging | 154 | Quaintly | 126 | Rabbi | 106 | Rancid | 259 |
| Prejudgment | 154 | Quaintness | 126 | Rabble | 125 | Rancidity | 259 |
| Prejudice | 154 | Quake | 126 | Rabid | 125 | Rancidness | 259 |
| Prelacy | 154 | Quaked | 126 | Raccoon | 125 | Rancor | 259 |
| Prelate | 154 | Quaking | 126 | Race | 125 | Rancorous | 259 |
| Prelatic | 154 | Qualified | 127 | Racer | 120 | Randolph | 497 |
| Prelatical | 154 | Qualify | 127 | Racing | 119 | Random | 259 |
| Prelatist | 154 | Quality | 127 | Raceme | 119 | Range | 259 |
| Prelection | 154 | Qualm | 127 | Rack | 120 | Ranger | 259 |
| Prelector | 154 | Qualmish | 127 | Racket | 120 | Rank | 259 |
| Prelibation | 244 | Quandary | 127 | Racking | 122 | Ranker | 259 |
| Preliminary | 244 | Quantity | 127 | Radial | 122 | Rankest | 259 |
| Prelude | 244 | Quantum | 127 | Radiance | 122 | Rankle | 259 |
| Preluded | 244 | Quarantine | 127 | Radiant | 122 | Rankly | 259 |
| Preluding | 244 | Quarrel | 127 | Radiate | 123 | Rankness | 259 |
| Prelusive | 244 | Quarrelsome | 127 | Radiation | 123 | Ransack | 259 |
| Prelusory | 244 | Quarry | 127 | Radiator | 123 | Ransome | 259 |
| Premediate | 244 | Quart | 127 | Radical | 123 | Ransomer | 259 |
| Premeditation | 244 | Quartan | 127 | Radicalism | 123 | Ransomed | 259 |
| Premier | 244 | Quartele | 128 | Radically | 123 | Ransoming | 259 |
| Premiership | 244 | Quarter | 127 | Radicate | 123 | Rant | 259 |
| Premise | 244 | Quarterdeck | 127 | Radication | 123 | Ranted | 259 |
| Premonitory | 244 | Quarterly | 128 | Radius | 123 | Ranting | 259 |
| Preoccupy | 244 | Quartern | 128 | Raffle | 123 | Rap | 259 |
| Preordain | 244 | Quartette | 128 | Rafter | 122 | Rapacious | 260 |
| Preordination | 244 | Quartile | 101 | Rag | 122 | Rapacity | 260 |

TRADE WORD INDEX--Continued.

| | Page | | Page | | Page | | Page |
|---------------|------|------------------|------|-----------------|------|-----------------|------|
| Sag..... | 231 | Submit..... | 181 | Tapering..... | 371 | Temperance..... | 376 |
| Sailor..... | 231 | Suffer..... | 181 | Tapestried..... | 371 | Temperate..... | 376 |
| Saint..... | 231 | Sugar..... | 181 | Tapestry..... | 371 | Tempering..... | 376 |
| Sallie..... | 231 | Sugaring..... | 181 | Tapster..... | 371 | Templar..... | 376 |
| Salmon..... | 231 | Supper..... | 181 | Tapaccio..... | 319 | Temporal..... | 378 |
| Salt..... | 231 | Susan..... | 182 | Tarantula..... | 371 | Temporize..... | 378 |
| Sampson..... | 497 | Swamp..... | 182 | Tardation..... | 276 | Temptable..... | 378 |
| Samuel..... | 497 | Swan..... | 182 | Tardigrada..... | 276 | Temptation..... | 378 |
| Sand..... | 231 | Swift..... | 182 | Tardiness..... | 371 | Tempting..... | 378 |
| Satan..... | 231 | Sybil..... | 182 | Tardity..... | 270 | Temulency..... | 378 |
| Savah..... | 231 | Sylvia..... | 182 | Tardo..... | 270 | Tenable..... | 378 |
| Scan..... | 231 | Tabinet..... | 315 | Tardy..... | 371 | Tenacious..... | 379 |
| Scant..... | 150 | Tabernacle..... | 302 | Target..... | 372 | Tenacity..... | 379 |
| Scoff..... | 150 | Tabieza..... | 275 | Targeteer..... | 271 | Tenantable..... | 379 |
| Screen..... | 231 | Tablecloth..... | 302 | Targum..... | 271 | Tenanting..... | 379 |
| Scream..... | 231 | Tablet..... | 302 | Tarlatan..... | 269 | Tenantless..... | 379 |
| Screech..... | 232 | Tableture..... | 302 | Tarnish..... | 372 | Tenantry..... | 379 |
| Scribe..... | 150 | Tabor..... | 302 | Tarnishing..... | 372 | Tendency..... | 379 |
| Scroll..... | 150 | Tabouret..... | 302 | Tarpan..... | 269 | Tender..... | 379 |
| Sea..... | 223 | Tabs..... | 302 | Tarpum..... | 269 | Tenderling..... | 379 |
| Seabank..... | 150 | Tabular..... | 302 | Tarquinish..... | 269 | Tenderness..... | 379 |
| Seaboat..... | 150 | Tabulated..... | 302 | Tarquist..... | 269 | Tendinous..... | 380 |
| Seabound..... | 185 | Tabulation..... | 302 | Tarragon..... | 269 | Tendon..... | 380 |
| Seacoast..... | 185 | Taciturn..... | 302 | Tarras..... | 269 | Tendrill..... | 380 |
| Seagull..... | 185 | Tacitly..... | 302 | Tarriance..... | 269 | Tendry..... | 380 |
| Seam..... | 185 | Tacker..... | 302 | Tartan..... | 372 | Tenebrous..... | 380 |
| Seashore..... | 185 | Tactical..... | 302 | Tartareous..... | 372 | Tenement..... | 380 |
| Seaside..... | 185 | Tactician..... | 302 | Tartarion..... | 372 | Tenesmus..... | 380 |
| Seth..... | 497 | Tactility..... | 302 | Tartlet..... | 372 | Tense..... | 381 |
| Shad..... | 185 | Tactpole..... | 369 | Tartly..... | 372 | Tensible..... | 381 |
| Shadow..... | 185 | Taffeta..... | 369 | Tartness..... | 372 | Tensility..... | 381 |
| Shop..... | 185 | Tagrag..... | 369 | Tarts..... | 372 | Tension..... | 381 |
| Sidney..... | 497 | Tagtail..... | 369 | Task..... | 9 | Tentacle..... | 381 |
| Silas..... | 497 | Tailor..... | 369 | Taskmaster..... | 372 | Tentacular..... | 381 |
| Sigh..... | 185 | Tailoress..... | 369 | Tasseled..... | 372 | Tentative..... | 381 |
| Simon..... | 497 | Tailoring..... | 369 | Tastable..... | 372 | Tenter..... | 381 |
| Sin..... | 185 | Taintless..... | 369 | Taste..... | 372 | Tennity..... | 381 |
| Sink..... | 185 | Tainture..... | 369 | Tastefully..... | 372 | Tepify..... | 381 |
| Sipping..... | 185 | Talebearer..... | 369 | Tasteless..... | 372 | Tepid..... | 381 |
| Skate..... | 185 | Talented..... | 369 | Tatling..... | 372 | Tepidity..... | 382 |
| Skin..... | 185 | Talisman..... | 369 | Tatter..... | 372 | Tepidness..... | 382 |
| Skull..... | 185 | Talkative..... | 369 | Tattooed..... | 372 | Terebinth..... | 382 |
| Slab..... | 185 | Talker..... | 369 | Tattooing..... | 372 | Terebrate..... | 382 |
| Slag..... | 185 | Tallness..... | 369 | Taught..... | 372 | Termagency..... | 382 |
| Slam..... | 185 | Tallowish..... | 369 | Taunted..... | 372 | Termagent..... | 382 |
| Slay..... | 185 | Talmud..... | 369 | Taunting..... | 372 | Terminable..... | 382 |
| Sleep..... | 185 | Talmudicale..... | 369 | Tautology..... | 372 | Terminist..... | 383 |
| Slide..... | 185 | Tamable..... | 369 | Tavern..... | 372 | Termless..... | 383 |
| Slip..... | 185 | Tamarind..... | 369 | Tawdrily..... | 373 | Terrace..... | 383 |
| Snuff..... | 185 | Tamarisk..... | 369 | Tawdriness..... | 373 | Terrapin..... | 383 |
| Soak..... | 177 | Tambour..... | 369 | Tawdry..... | 373 | Terreous..... | 383 |
| Sofa..... | 176 | Tambourine..... | 369 | Taxable..... | 373 | Terrible..... | 383 |
| Solomon..... | 497 | Tame..... | 9 | Taxation..... | 373 | Terrier..... | 388 |
| Song..... | 172 | Tameless..... | 369 | Taxidermy..... | 373 | Terrific..... | 388 |
| Souny..... | 171 | Taming..... | 369 | Taxonomy..... | 373 | Terrify..... | 388 |
| Sophia..... | 173 | Tampering..... | 369 | Teachable..... | 374 | Terrifying..... | 388 |
| Span..... | 173 | Tan..... | 9 | Teacher..... | 374 | Territory..... | 388 |
| Sparl..... | 208 | Tandem..... | 369 | Teamster..... | 374 | Terrorism..... | 388 |
| Speak..... | 173 | Tangent..... | 369 | Teapot..... | 374 | Tersely..... | 388 |
| Spin..... | 208 | Tangential..... | 369 | Tearful..... | 374 | Terseness..... | 388 |
| Spoon..... | 182 | Tangible..... | 369 | Teasing..... | 374 | Tertian..... | 388 |
| Spring..... | 182 | Tangle..... | 369 | Technical..... | 374 | Tesletate..... | 388 |
| Stack..... | 201 | Tank..... | 369 | Tedious..... | 375 | Tessular..... | 388 |
| Stag..... | 181 | Tankard..... | 369 | Tedium..... | 375 | Test..... | 17 |
| Stamp..... | 181 | Tanner..... | 369 | Teemful..... | 375 | Testacea..... | 388 |
| Stand..... | 181 | Tanpit..... | 370 | Teething..... | 375 | Testament..... | 395 |
| Starve..... | 181 | Tansy..... | 370 | Teetotum..... | 375 | Testator..... | 395 |
| Steam..... | 181 | Tantalise..... | 370 | Tegument..... | 375 | Testifier..... | 395 |
| Stephen..... | 497 | Tandamount..... | 370 | Telescope..... | 376 | Testifying..... | 395 |
| Stud..... | 181 | Tantivy..... | 370 | Tellurate..... | 376 | Testimony..... | 397 |
| Stuff..... | 181 | Tantrums..... | 371 | Temerity..... | 376 | Testiness..... | 397 |
| Stupid..... | 181 | Taper..... | 371 | Temper..... | 376 | Testing..... | 397 |

TRADE WORD INDEX—Continued.

| | Page | | Page | | Page | | Page |
|------------------|------|------------------|------|-----------------|------|------------------|------|
| Tetarmus..... | 397 | Throwster..... | 404 | Ticotico..... | 275 | Titmouse..... | 410 |
| Tethar..... | 397 | Thrush..... | 404 | Tidbit..... | 275 | Titubation..... | 421 |
| Tetragon..... | 397 | Thrusting..... | 404 | Tidesman..... | 404 | Titulary..... | 421 |
| Tetrarch..... | 397 | Thumb..... | 404 | Tidily..... | 275 | Titus..... | 497 |
| Teutonic..... | 397 | Thumbkin..... | 404 | Tidiness..... | 275 | Toad..... | 421 |
| Texile..... | 401 | Thumper..... | 404 | Tidology..... | 275 | Toadish..... | 421 |
| Textorial..... | 401 | Thumping..... | 404 | Tipsily..... | 405 | Toadstool..... | 421 |
| Texture..... | 401 | Thundering..... | 404 | Tidyng..... | 404 | Toadyism..... | 421 |
| Thankful..... | 401 | Thwarted..... | 404 | Tiede..... | 274 | Toast..... | 421 |
| Thankless..... | 401 | Tiara..... | 275 | Tiedeur..... | 274 | Toby..... | 497 |
| Thatcher..... | 401 | Tiaraed..... | 275 | Tiedussant..... | 274 | Toddle..... | 421 |
| Thatching..... | 401 | Tiaratos..... | 275 | Tiefawngig..... | 274 | Toddy..... | 421 |
| Theater..... | 401 | Tiarelle..... | 275 | Tiefbene..... | 274 | Todesnoth..... | 276 |
| Theatrical..... | 401 | Tiarlo..... | 275 | Tiefbewegt..... | 274 | Todesopfer..... | 276 |
| Theism..... | 402 | Tiarocere..... | 275 | Tiefblau..... | 274 | Todespein..... | 276 |
| Theistic..... | 402 | Tiaugeu..... | 275 | Tiefblauer..... | 274 | Todespfieil..... | 276 |
| Thence..... | 497 | Tibaranus..... | 275 | Tiefblick..... | 274 | Todesqual..... | 276 |
| Theobold..... | 497 | Tibatoio..... | 275 | Tiefdeuker..... | 274 | Todesstich..... | 276 |
| Theobroma..... | 402 | Tiberinus..... | 275 | Tiefdunkel..... | 274 | Todesstoss..... | 276 |
| Theocracy..... | 402 | Tiberiolio..... | 275 | Tiefernst..... | 274 | Todestag..... | 276 |
| Theocratic..... | 402 | Tiberias..... | 275 | Tiefgang..... | 274 | Todesthau..... | 276 |
| Theodicy..... | 497 | Tibesie..... | 275 | Tiefganges..... | 274 | Todesthor..... | 276 |
| Theodore..... | 497 | Tibetan..... | 275 | Tiefgheud..... | 274 | Todestrost..... | 276 |
| Theodolite..... | 402 | Tibetina..... | 275 | Tiefgruen..... | 274 | Todesturz..... | 276 |
| Theogonist..... | 402 | Tibhoth..... | 275 | Tiefherzig..... | 274 | Todesufer..... | 276 |
| Theologian..... | 402 | Tibiare..... | 275 | Tiefhand..... | 274 | Todesweg..... | 276 |
| Theomachy..... | 402 | Tibialibus..... | 275 | Tiefhades..... | 274 | Todeswort..... | 276 |
| Theonical..... | 497 | Tibiamente..... | 275 | Tiefsinn..... | 274 | Todeswunde..... | 276 |
| Theorem..... | 497 | Tibicinavi..... | 275 | Tiefsinnig..... | 274 | Todeszeit..... | 276 |
| Theorica..... | 497 | Tibicine..... | 275 | Tiefsprung..... | 274 | Todeszuege..... | 276 |
| Theorist..... | 402 | Tibios..... | 275 | Tiefstill..... | 274 | Todfeind..... | 276 |
| Theorizing..... | 402 | Tibisena..... | 275 | Tieftoenig..... | 274 | Todfeindin..... | 276 |
| Theory..... | 497 | Tibizabo..... | 275 | Tiegelein..... | 274 | Todgebet..... | 276 |
| Theosph..... | 497 | Tibizabunt..... | 275 | Tiegelofen..... | 274 | Todidac..... | 276 |
| Theosophize..... | 497 | Tibizamus..... | 275 | Tielismo..... | 274 | Todiers..... | 276 |
| Thermettic..... | 402 | Tibizes..... | 275 | Tiemannite..... | 274 | Todiramphe..... | 276 |
| Thesis..... | 402 | Tibizo..... | 275 | Tiffin..... | 404 | Todirostre..... | 276 |
| Theurgic..... | 402 | Tiborna..... | 275 | Tiger..... | 16 | Todirramfo..... | 276 |
| Thicket..... | 402 | Tibouchine..... | 275 | Tight..... | 16 | Todkrank..... | 276 |
| Thickhead..... | 402 | Tibui..... | 275 | Tightness..... | 404 | Todkranker..... | 276 |
| Thickness..... | 402 | Tibullo..... | 275 | Tillage..... | 404 | Todmuede..... | 276 |
| Thickskin..... | 402 | Tibullus..... | 275 | Tillering..... | 404 | Todtaufe..... | 276 |
| Thinking..... | 402 | Tiburis..... | 275 | Tilting..... | 405 | Todtenamt..... | 276 |
| Thinly..... | 402 | Tiburnorum..... | 275 | Timbered..... | 405 | Todtenband..... | 276 |
| Thinness..... | 402 | Tiburon..... | 275 | Timbrel..... | 405 | Todtenbaum..... | 276 |
| Thirst..... | 402 | Tiburones..... | 275 | Timeless..... | 405 | Todtenbein..... | 276 |
| Thirstly..... | 402 | Tiburtine..... | 275 | Timidity..... | 405 | Todtenbett..... | 276 |
| Thistle..... | 402 | Tiburtinus..... | 275 | Timidness..... | 405 | Todtenbuch..... | 276 |
| Thither..... | 403 | Tichcelaars..... | 275 | Timothy..... | 497 | Todenuelle..... | 276 |
| Thomas..... | 497 | Tichloven..... | 275 | Timorous..... | 405 | Todtenfrau..... | 276 |
| Thoracic..... | 403 | Tichelwerk..... | 275 | Timorsome..... | 405 | Todtengrab..... | 276 |
| Thornback..... | 403 | Tichius..... | 275 | Tinctorial..... | 405 | Todtenhaus..... | 276 |
| Thornless..... | 403 | Tichobates..... | 275 | Tincture..... | 405 | Todtenhemd..... | 276 |
| Thorny..... | 403 | Tichodrome..... | 275 | Tinder..... | 405 | Todtenhof..... | 276 |
| Thoughtful..... | 403 | Tichones..... | 275 | Tinfoil..... | 405 | Todtenlade..... | 276 |
| Thraldom..... | 403 | Tichorine..... | 275 | Tingling..... | 405 | Todtenlied..... | 276 |
| Thrashing..... | 403 | Tichorrhin..... | 275 | Tinkering..... | 405 | Todtenmahl..... | 276 |
| Threadbare..... | 403 | Ticida..... | 275 | Tinkler..... | 405 | Todtenpomp..... | 276 |
| Threader..... | 403 | Ticinus..... | 275 | Tinman..... | 405 | Todtenruh..... | 276 |
| Threatful..... | 403 | Tick..... | 16 | Tinsel..... | 405 | Todtensarg..... | 276 |
| Threshold..... | 403 | Ticketed..... | 404 | Tinseling..... | 405 | Todtentanz..... | 276 |
| Thrift..... | 403 | Ticketing..... | 275 | Tipsily..... | 405 | Toggery..... | 425 |
| Thriftless..... | 403 | Tickets..... | 275 | Tipstaff..... | 405 | Toilet..... | 425 |
| Thriftly..... | 403 | Tickle..... | 404 | Tiptoe..... | 405 | Toilsome..... | 425 |
| Thrill..... | 403 | Ticklish..... | 275 | Tirade..... | 405 | Token..... | 425 |
| Thrilling..... | 403 | Ticklishly..... | 275 | Tiredness..... | 406 | Tolerable..... | 425 |
| Thriving..... | 403 | Ticktack..... | 275 | Tiresome..... | 407 | Toleration..... | 425 |
| Throbbing..... | 403 | Ticoada..... | 275 | Tithable..... | 410 | Tollable..... | 425 |
| Throne..... | 403 | Ticodifro..... | 275 | Tithing..... | 410 | Tollbar..... | 425 |
| Thronging..... | 403 | Ticodrome..... | 275 | Titillate..... | 410 | Tollbooth..... | 425 |
| Throttle..... | 404 | Ticoreas..... | 275 | Titlark..... | 410 | Tollgate..... | 425 |

| | Page | | Page | | Page |
|--------------|------|--------------|------|------------|------|
| Torpidity | 450 | Translud | 456 | Triplicate | 497 |
| Torpidness | 450 | Transmate | 409 | Triturate | 456 |
| Torpidifying | 450 | Transome | 412 | Triumph | 456 |
| Torpidude | 450 | Transplant | 414 | Triumphant | 456 |
| Torrent | 470 | Transpose | 411 | Trodden | 443 |
| Tortousity | 470 | Transpire | 414 | Troglodyte | 497 |
| Tortuous | 470 | Transverse | 406 | Trolling | 497 |
| Torturer | 470 | Trapped | 416 | Trollop | 497 |
| Toryism | 470 | Trappings | 416 | Trombone | 497 |
| Totalism | 470 | Trappous | 447 | Trophy | 497 |
| Totter | 470 | Traumatic | 439 | Truseless | 436 |
| Touchingly | 460 | Travail | 439 | Trueness | 484 |
| Toughening | 460 | Travailing | 470 | Truffle | 484 |
| Toughness | 462 | Traveler | 470 | Truism | 484 |
| T-ornament | 462 | Traverse | 470 | Trumpet | 484 |
| Tournay | 462 | Treacle | 464 | Trumpeting | 484 |
| Tourniquet | 462 | Treachery | 470 | Truncheon | 470 |
| Tourist | 462 | Treading | 464 | Trundle | 451 |
| Tousling | 462 | Treadless | 464 | Trundling | 468 |
| Touter | 462 | Treadmill | 464 | Trunkhose | 468 |
| Towardness | 461 | Treasure | 473 | Truthfully | 459 |
| Towelling | 386 | Treasuring | 473 | Truthless | 461 |
| Towered | 386 | Treatise | 476 | Trygon | 437 |
| Towering | 386 | Treatment | 476 | Tubercle | 437 |
| Townhall | 386 | Treble | 476 | Tubercular | 427 |
| Township | 386 | Trefoil | 476 | Tuberosc | 469 |
| Toyish | 386 | Trellis | 477 | Tubman | 469 |
| Traceable | 386 | Trembling | 477 | Tubulated | 495 |
| Tracery | 386 | Tremendous | 477 | Tufaceous | 495 |
| Tracking | 386 | Tremulous | 479 | Tufted | 495 |
| Trackless | 386 | Trenchant | 479 | Tugging | 494 |
| Tractable | 386 | Trenched | 479 | Tuition | 425 |
| Tractarian | 386 | Trepanned | 479 | Tuitionary | 496 |
| Trader | 386 | Trepanning | 479 | Tulip | 496 |
| Tradesman | 356 | Trepidated | 479 | Tumbler | 497 |
| Trading | 356 | Tresspass | 479 | Tumefy | 497 |
| Tradition | 355 | Tresses | 479 | Tumor | 496 |
| Traduce | 355 | Triable | 479 | Tumulis | 496 |
| Traducing | 363 | Tirad | 479 | Tunable | 496 |
| Tragedy | 408 | Triangular | 479 | Tuneful | 497 |
| Tragical | 408 | Tribe | 479 | Tuneless | 497 |
| Trailing | 408 | Tributary | 479 | Tungstate | 497 |
| Trainer | 417 | Tribute | 479 | Tungstenic | 497 |
| Traitorous | 417 | Tricennial | 479 | Tunio | 455 |
| Traction | 417 | Trichord | 479 | Tuning | 496 |
| Trajectory | 421 | Trickery | 479 | Turban | 484 |
| Trammel | 431 | Trickish | 479 | Turbidly | 484 |
| Trammeled | 442 | Trickster | 479 | Turbot | 484 |
| Tramontane | 395 | Tricolor | 479 | Turbulent | 484 |
| Tramp | 395 | Trident | 479 | Turf | 484 |
| Tramplng | 388 | Trifler | 481 | Turfless | 462 |
| Trance | 392 | Trifoliolate | 481 | Turk | 17 |
| Tranquil | 392 | Trigamous | 481 | Valentine | 497 |
| Transactor | 392 | Trigamy | 481 | Waft | 162 |
| Transcend | 392 | Triglyph | 481 | Wage | 162 |
| Transcribe | 396 | Trigonal | 481 | Wagered | 162 |
| Transept | 433 | Trihedral | 496 | Walter | 497 |
| Transfix | 434 | Trilateral | 496 | Wilfred | 497 |
| Transfixly | 434 | Trilobite | 497 | William | 497 |
| Transfuse | 421 | Triocular | 497 | Xebec | 497 |
| Transgress | 408 | Trinity | 497 | Xema | 497 |
| Transiency | 453 | Trinket | 497 | Xenimu | 497 |
| Transitive | 453 | Triolet | 497 | Xenomi | 497 |
| Transitory | 456 | Tripartite | 497 | | |
| Translate | 456 | Triplet | 497 | | |

GENERAL INDEX.

| A | | Page | | Page |
|---|------------------|---|-------------------|------|
| Acme Lead Cable..... | 335 | Arc Lamp Cordage, Iron..... | 342 | |
| Acme Portable Testing Set..... | 374 | Arc Lamp Cross Arm..... | 143 | |
| Adjustable Arm Telephone..... | 459 | Arc Lamp Hanger, Central..... | 476 | |
| Adjustable Arm Transmitter..... | 461 | Arc Lamp Hoods..... | 137 | |
| Adjustable Bridging Arm Telephone..... | 460 | Arc Light Ammeter, Weston..... | 360 | |
| Adjustable Condensers..... | 383, 386 | Arc Machine Brushes..... | 262 | |
| Adjustable Lamp Hanger..... | 149 | Arc Switches..... | 135, 136 | |
| Adjustable Thermostat..... | 449 | Armalac..... | 179 | |
| Adjusters, Cord, Dow..... | 50 | Armored Cables, Okonite..... | 336 | |
| Adjusters, Cord, Q and S..... | 49 | Asbestos..... | 177 | |
| Adjusters, Wood. Ball..... | 49 | Attaching Hook and Receptacle..... | 47 | |
| Adjusting Clamp..... | 108 | Attachments, Gas..... | 50 | |
| Advance Stem Burner..... | 437 | Attachment Plugs..... | 44, 45 | |
| Air Heater, Electric..... | 121 | Auger Bits..... | 215 | |
| Alarm Clock, Perfection..... | 440 | Augers, Post Hole..... | 195 | |
| Alcohol Blow Torch..... | 222 | Automatic Annunciator..... | 388 | |
| Allen Soldering Stick..... | 176 | Automatic Burners..... | 436 | |
| All China Junction Box..... | 315 | Automatic Drop..... | 442 | |
| All Porcelain Fuse Plugs..... | 25 | Automatic Drills and Boring Tools..... | 213 | |
| Almond Flexible Bracket..... | 63 | Automatic Lamp Supporting Pulley, Cutters.. | 146 | |
| Alternating Current Motors..... | 286, 287, 292 | Automatic Mast Arm Pulley..... | 146 | |
| Alternating Series Lamps..... | 111, 114 | Automatic Switch, C. S..... | 19 | |
| Aluminum Reflectors..... | 99 | Automatic Switch, Sechrist..... | 475 | |
| "Always Level" Street Hood..... | 108 | Awning Insulator..... | 173 | |
| American Grip..... | 206 | Axes..... | 218 | |
| American Solid Connectors..... | 466 | Ayer's Windlass..... | 140 | |
| American Storage Battery..... | 424, 425 | A. Z. Receptacles..... | 36 | |
| American Wire Gauge..... | 230 | | | |
| Amidon Corner Brace..... | 210 | | | |
| Ammeters, Bristol Recording..... | 372 | | | |
| Ammeters, Illuminated Dial, Queen-Wirt.... | 366 | B | | |
| Ammeters, Illuminated Dial, Wagner..... | 364, 365 | B. B. Galvanized Line Wire..... | 342 | |
| Ammeters, Illuminated Dial, Weston..... | 362, 363 | Back Boards and Battery Boxes..... | 465 | |
| Ammeters, Queen-Wirt, Round Pattern..... | 369 | Back Contact Push..... | 406 | |
| Ammeters, Queen-Wirt, Alternating Low Range | 358 | Bags, Tool..... | 199 | |
| Ammeters, Queen-Wirt Portable..... | 357, 358 | Ball Cluster..... | 60 | |
| Ammeters, Round Pattern, Weston..... | 367 | Balls, Adjusting..... | 49 | |
| Ammeters, Weston Portable..... | 355, 356 | Bank Board..... | 111 | |
| Ampere Hour Meter, Shallenberger..... | 276 | Banner Weatherproof Wire..... | 341 | |
| Angle Receptacles..... | 39, 42 | Barber Ratchet Brace..... | 210 | |
| Anchor Switches..... | 12 | Bare Copper Wire..... | 339 | |
| Anchor Switch Blocks..... | 12 | Batteries..... | 408-427 | |
| Annunciators..... | 388-391 | Battery Boxes and Back Boards..... | 465 | |
| Annunciator Wire..... | 340 | Battery Directions..... | 413 | |
| Anti-Hum..... | 465 | Battery Knife..... | 417 | |
| Applegate Matting..... | 442 | Battery Motors..... | 287, 288, 443-445 | |
| Arc Carbons..... | 132 | Battery Sundries..... | 415 | |
| Arc Cut-outs..... | 135, 136 | Battery Utensils..... | 415 | |
| Arc Fixtures, Cutters..... | 138 | Beattie Battery Zincs..... | 416 | |
| Arc Globes..... | 132, 320 | Bells..... | 392-396 | |
| Arc Lamps..... | 318-323, 478-481 | Bells, Extension..... | 462 | |
| Arc Lamps, Photo-Engraving..... | 480, 481 | Bells, Magneto..... | 462 | |
| | | Bell Cluster..... | 60 | |
| | | Bell Hangers' Drills..... | 212 | |

GENERAL INDEX—Continued.

| | Page | | Page |
|---|-------------------|--|----------|
| Carbon Plates..... | 417 | Circular Loom..... | 312 |
| Carbon Theater Dimmer..... | 304 | Clamp, Adjusting..... | 108 |
| Carbon Tongs..... | 133 | Clamps, Eccentric..... | 206, 207 |
| Carbons, Arc..... | 132 | Clamp, Guy..... | 156 |
| Carbons, Elcetra..... | 324 | Clamp Insulators, Porcelain..... | 157 |
| Carbons, Helios..... | 324 | Clamps, Splicing..... | 204 |
| Cardboard Scales..... | 381 | Clamp, Wire Rope..... | 145 |
| Car Fixtures..... | 66 | Cleats, Brass..... | 182 |
| Cart, Lineman's..... | 198 | Cleats, Porcelain..... | 31, 32 |
| Carriage Bolts..... | 154 | Cleats, Wood..... | 181, 182 |
| Carrying Hooks..... | 196 | Climax Medical Battery..... | 427 |
| Cassiday Fixture Switch..... | 48 | Climbers..... | 204 |
| Casing, Polished Brass..... | 55 | Clips, Crosby..... | 156 |
| Cautery Transformers, Edison..... | 429 | Clocks, Alarm..... | 440 |
| Ceiling Boards..... | 134 | Clocks, Self-Winding..... | 473 |
| Ceiling Flanges..... | 57 | Clocks, Signal and Burglar Alarm..... | 474 |
| Ceiling Hook, Cutter..... | 142 | Cloth, Crocus..... | 133 |
| Celluloid Shades..... | 97 | Cloth, Emery..... | 133 |
| Cell Tester, Queen..... | 359 | Cluster Balls..... | 60 |
| Centers of Distribution..... | 253 | Cluster Bells..... | 60 |
| Central Arc Lamp Hanger..... | 476 | Clutch, Carbon..... | 148 |
| Central Buzzer..... | 393 | Coal Grain Microphone..... | 461 |
| Central Carbon Battery..... | 408 | Coe Screw Wrench..... | 209 |
| Central Cleat, Porcelain..... | 31 | Coffee Pots..... | 122 |
| Central Desk Clamp..... | 63 | Coils, Certified Standard..... | 379 |
| Central No. 2 Battery..... | 410 | Cold Chisels..... | 217 |
| Central Pulleys..... | 144 | Collars, Speaking Tube..... | 435 |
| Central Receptacles..... | 36 | Columbia Insulator..... | 160 |
| Central Roll Top Desk Light..... | 62 | Combined Exhaust Fans..... | 290, 291 |
| Central Rosette Cut-outs..... | 28 | Combination Bell and Push Button..... | 392 |
| Central Snap Switches..... | 12 | Combination Brackets..... | 79- 81 |
| Central Sockets..... | 36 | Combination Bracket and Desk Lamp..... | 61 |
| Central Soldering Salts..... | 176 | Combination Electrolier..... | 76- 83 |
| Central Spark Arrestor..... | 137 | Combination Hot Blast Blow Torch..... | 223 |
| Centrifuge, Edison..... | 430 | Combination Knife..... | 214 |
| Certified Standard Coils..... | 379 | Combination Windlass..... | 141 |
| C. & H. Field Rheostat..... | 298, 299 | "Come Along" Eccentric Clamp..... | 207 |
| C & H. Rheostats..... | 293-295, 298, 299 | Commutator Compound, Gales..... | 177 |
| Chafing Dish, Electric..... | 122 | Commutator Segments, Micanite..... | 189 |
| Chamois Skin..... | 133 | Compass Saws..... | 216 |
| Champion Screw Driver..... | 220 | Compound, Chatterton's..... | 177 |
| Chandelier Hooks, Iron..... | 57 | Compound, Commutator..... | 177 |
| Chandelier Loops, Iron..... | 57 | Compound, M. I. C..... | 189 |
| Chandelier Switch, Bryant..... | 48 | Compound Metal Push..... | 398 |
| Chapman Bracket Receptacle..... | 45 | Compound Wood Call Push..... | 398 |
| Chapman Iron Wall Boxes..... | 45 | Condensers..... | 383, 386 |
| Chapman Receptacle and Plug..... | 45 | Conduit..... | 308, 312 |
| Chase "Knockout" Boxes..... | 314 | Connectors, American Solid..... | 466 |
| Chatterton's Compound..... | 177 | Connectors, McIntyre..... | 466 |
| Chicago Voltmeter Switch..... | 258 | Controllers, Motor, Speed..... | 297 |
| China Switches..... | 8 | Copenhagen Thermostat..... | 449 |
| Chisels..... | 217, 218 | Copper Leaf Brushes..... | 263 |
| Chloride of Silver Testing Batteries..... | 423 | Coppers, Soldering..... | 222 |
| Choke Coils..... | 271 | Copper Terminal Fuses..... | 127, 128 |
| Cigar Lighter..... | 477 | Cordage, Iron, Arc Lamp..... | 342 |
| Circuit Breakers..... | 265- 269 | Cord Adjusters..... | 49 |
| Circuit Breaker, Glass..... | 164 | Cord Adjusters, Dow..... | 50 |
| Circuit Breaker, P. & S..... | 174 | Cord Tips..... | 477 |

GENERAL INDEX—Continued.

| | Page | | Page |
|---|------|--|------|
| Elden Circuit Breaker..... | 268 | Fletcher's Gem Wire Holders..... | 157 |
| Electra Carbons..... | 324 | Fletcher's Iron Pins..... | 157 |
| Electric Door Openers..... | 458 | Fletcher's Insulated Cross Arm..... | 142 |
| Electric Matting, Applegate..... | 442 | Fletcher's Insulated Lamp Hanger..... | 142 |
| Electric Portables.....61, 62, | 64 | Fletcher's Pole Lock..... | 143 |
| Electricians' Drills..... | 212 | Fletcher's Sleet Proof Pulleys.....144, 146, | 147 |
| Electricians' Scissors..... | 219 | Fletcher's Windlass..... | 141 |
| Electrolier, Combination.....76- | 83 | Flexible Brackets, Almond..... | 63 |
| Electrolier Wire, Okonite..... | 336 | Flexible Conduit..... | 312 |
| Electroliers, Electric.....72- | 75 | Flexible Hard Rubber Tubing..... | 184 |
| Electrolier, Switch, Hart..... | 11 | Flexible Speaking Tube..... | 433 |
| Electrical Forge..... | 225 | Flexible Switch Cords, Okonite.....333, | 334 |
| Elevator Annunciator..... | 389 | Float and Pressure Switch..... | 303 |
| Elevator Cable..... | 389 | Floor Insulators, Porcelain..... | 171 |
| Electro-Dynamometers..... | 384 | Floor Insulators, Glass..... | 172 |
| Electro-Mechanical Gongs.....450, | 451 | Floor Push..... | 407 |
| Electro-Magneto Blasting Machines..... | 446 | Flush Plug Receptacle..... | 46 |
| Emerson Alternating Power Motor..... | 292 | Flush Switches, C. S.....18, | 19 |
| Emery Cloth..... | 133 | Flush Switches, Hart.....14, 15, | 17 |
| Empire Angle Focusing Arc Lamps.....480, | 481 | Flush Switches, New York..... | 17 |
| Enamelac..... | 179 | Flush Switches, Perkins..... | 13 |
| Enameled Paper Shades..... | 97 | Flush Switches, Stevens..... | 16 |
| Enamel Field Rheostats.....300- | 302 | Foot Warmers, Electric..... | 121 |
| Enclosed Arc Lamps.....318-323, | 479 | Foot Push..... | 407 |
| Ericsson Transmitter..... | 461 | Folding Screw Driver..... | 214 |
| Esperson Desk Lamps and Portables..... | 64 | Frames, Iron, Switch.....15, | 20 |
| Eureka Dynamo Brushes..... | 259 | Friction Tape..... | 175 |
| Eureka Hook..... | 462 | Fuller Battery, Improved..... | 412 |
| Eureka Hot Blast Furnace..... | 225 | Fuller Exhaust Fan Outfit..... | 290 |
| Excelsior Segments..... | 264 | Fuller Mercury Bichromate Battery..... | 413 |
| Excelsior Soldering Copper..... | 222 | Furnace, Hot Blast..... | 225 |
| Expansion Bits..... | 215 | Fuse Blocks, Main Line.....249, 326, | 327 |
| Extra B. B. Battery..... | 408 | Fuse Blocks, Maxstadt.....470, | 471 |
| Extra B. B. Iron Box Bell.....393, | 394 | Fuse Boards..... | 329 |
| Extension Bells..... | 462 | Fuse Holders, Removable..... | 326 |
| Eye-glasses..... | 199 | Fuse Links.....127, | 128 |
| F | | Fuse Plugs, Edison..... | 22 |
| Fancy Gongs..... | 397 | Fuse Plugs, All Porcelain..... | 25 |
| Farina Boiler..... | 119 | Fuse Switches, Perkins..... | 8 |
| Fibre Vulcanized..... | 183 | Fuse Repair Kit..... | 127 |
| Field Rheostats.....298- | 302 | Fuse Wire..... | 126 |
| Fire Alarm Boxes.....448, | 449 | Fuses, Blasting..... | 447 |
| Fire Alarm Registers..... | 452 | Fuses, D. & W. Non-Arcing.....316, | 317 |
| Fire Alarm Supplies.....448- | 452 | Fuse, Line, Telephone..... | 471 |
| Fire Alarm Thermostat..... | 449 | Fuses, Sneak, Maxstadt..... | 471 |
| Fire and Weatherproof Hook and Receptacle.. | 47 | Fuses, Telephone and Telegraph, Maxstadt..470, | 471 |
| Fittings, Polished Brass..... | 56 | Fuseless Rosettes..... | 30 |
| Five o'Clock Tea..... | 119 | Fusible Receptacles.....33, 36, 37, 38, | 41 |
| Fixtures, Electric and Combination.....65- | 83 | F. W. Arc Cut-outs.....135, | 136 |
| Fixtures, Marine.....103- | 105 | G | |
| Fixture Brackets..... | 59 | Gales Commutator Compound..... | 177 |
| Fixture Cut-outs..... | 27 | Galvanized Guy Clamps..... | 156 |
| Fixture Switch, Cassidy..... | 48 | Galvanized Guy Rods..... | 156 |
| Fixture Wire, Gas..... | 340 | Galvanized Line Wire, B. B..... | 342 |
| Flanges, Ceiling..... | 57 | Galvanized Steel Guy Wire..... | 342 |
| Flat Irons, Electric..... | 124 | Galvanized Steel Wire Strand..... | 342 |

GENERAL INDEX—Continued.

| | Page | | Page |
|---|--------------------|--|--------------|
| Galvanized Thimbles | 156 | Hatchets | 218 |
| Galvanometers | 380 | Head Bands | 464 |
| Galvanometer Shunts | 382 | Heating and Cooking Appliances. | 118-125 |
| Galvanometer, Pocket | 465 | Heating Pad, Electric | 123 |
| Galvanometer, Weston Portable | 360 | Helios Carbons | 324 |
| Gang Iron Boxes | 15, 20 | High Potential Switches | 247 |
| Gang Plates, C. S. | 19 | High Speed Indicator | 230 |
| Gang Plates, Hart | 15 | High Tension Okonite Wire | 333 |
| Garton Lightning Arrester | 272 | High Tension Service Switch | 315 |
| Gas Attachments | 50 | Hoffmans' Rod Polish | 177 |
| Gas Fixture Wire | 340 | Holders, Shade | 52 |
| Gas-Lighting Supplies | 436-440 | Holtzer Automatic Burner | 436 |
| Gas Stove | 225 | Hoods, Arc Lamp | 137 |
| Gauge, Warners, Battery | 465 | Hoods, Pole | 137 |
| Gem Wire Holder, Fletcher | 157 | Hoods, Pulpit | 97 |
| German Silver Wire | 344 | Hooks, Chandelier Iron | 57 |
| Giant Sounder, Bunnell | 456 | Hooks, Lifting and Carrying | 196 |
| Gibbs Switches | 7 | Hooks, Socket | 50 |
| Glass Circuit Breaker | 164 | Hook and Receptacle, Attaching | 47 |
| Glass Knobs | 164, 165 | Horse Shoe Cutouts | 26 |
| Globe Electric Cigar Lighter | 477 | Hotel Annunciators | 390, 391 |
| Globe Nets | 148 | House Annunciators | 389 |
| Globes, Arc | 132 | Hub Plates | 155 |
| Globes, Vaporproof | 95 | Hunnings Transmitter | 461 |
| Globes, Weatherproof | 95, 96 | | |
| Globes, Waterproof | 96 | | |
| Gloves, Rubber | 199 | | |
| Glue Pot, Electric | 120 | | |
| Gongs, Electro-Mechanical | 450, 451 | | |
| Gongs, Fancy | 397 | | |
| Gonda Battery | 410 | | |
| Gordon Battery | 414 | | |
| Gravity Battery | 415 | | |
| Grenet Battery | 415 | | |
| Grips | 205, 206 | | |
| Guarded Pikes | 196 | | |
| Guy Rods | 156 | | |
| Guy Wire | 342 | | |
| H | | | |
| Hack Saws | 216 | Imperial Ceiling Rosette | 30 |
| Hand Generators, Telephone | 463 | Improved Ex. B. B. Bell | 393 |
| Half Reflectors Shades | 94, 98 | Improved Fuller Battery | 412 |
| Hall Lights | 76 | Incandescent Gaslight Automatic Attachment | 436 |
| Hammers | 217 | Incandescent Lamps | 110-117 |
| Hand Saws | 216 | Indestructible Steel Ins. Pins | 153 |
| Hanger Boards | 134, 135 | Indicating Bell, Dandy | 388 |
| Hanger Board, All Porcelain | 476 | Induction Coil, Medical | 428 |
| Hard Rubber Rods | 184 | Induction Coils, Ruhmkorff | 440 |
| Hard Rubber Sheet | 183 | Induction Coils, Telephone | 464 |
| Hard Rubber Tubing | 184 | Ink Writing Registers | 452 |
| Hart Gang Plates | 15 | Insulated Extra B. B. Galvanized Iron Wire | 342 |
| Hart Iron Boxes | 15 | Insulating Cloth and Paper | 191, 192 |
| Hart Electrolier Switches | 11 | Insulating Compounds | 178, 179 |
| Hart Flush Switches | 14, 15, 17 | Insulating Joints, Macallen | 53, 54 |
| Hart Push Switches | 17 | Insulating Steel Staples | 433 |
| Hart Snap Switches | 10, 11, 14, 15, 17 | Insulator, Arc | 142 |
| | | Insulator, Awning | 173 |
| | | Insulator, Curved | 173 |
| | | Insulator, Economic | 172 |
| | | Insulator, Glass | 160-165 |
| | | Insulator, Porcelain | 166-169, 171 |
| | | Insulator, Porcelain Clamp | 157 |
| | | Insulator, Porcelain Floor | 171 |
| | | Insulator, Rubber Hook | 172 |
| | | Insulator, Screw Glass Floor | 172 |
| | | Insulator, Tree | 174 |
| | | Insulator, Wire Rope | 143 |
| | | Interchangeable Pulleys, Cutter's | 144 |
| | | Inter-communicating Telephones | 484 |
| | | Iron Arc Lamp Cordage | 342 |

GENERAL INDEX—Continued.

| | Page | | Page |
|--|----------|------------------------------------|----------|
| Iron Armored Conduit..... | 310 | Leather Handle Screw Driver..... | 220 |
| Iron Box Buzzer..... | 392 | Leather Nail Heads..... | 433 |
| Iron Brackets..... | 158, 159 | Leclanche Disque Battery..... | 413 |
| Iron Clad Theatre Dimmer..... | 305-307 | Lewis Attachment..... | 63 |
| Iron Crowfeet..... | 57 | Lifting and Carrying Hooks..... | 196 |
| Iron Pins..... | 153 | Lightning Arresters..... | 270-272 |
| Iron Pins, Fletcher's..... | 157 | Lightning Arrester, Telephone..... | 470, 471 |
| Iron Pulleys..... | 227 | Lightning Speed Indicator..... | 230 |
| Iron Turnbuckles..... | 154 | Lineman's Cart..... | 198 |
| Iron Wall Boxes, Chapman..... | 45 | Lineman's Stage..... | 198 |
| Iron Washers..... | 154 | Lineman's Torch..... | 222 |
| Iron Wire, Galvanized..... | 342 | Line Fuse, Telephone..... | 471 |
| I. T. E. Circuit Breakers..... | 265-268 | Line Wire, B. B. Galvanized..... | 342 |
| I. X. L. Cleat, Porcelain..... | 31 | Link Cut-outs, Edison..... | 22, 23 |
| J | | Locke's Glass Insulators..... | 163 |
| Jack, Metallic Circuit..... | 484 | Locke's Insulating Pins..... | 153 |
| Jandus Arc Lamps..... | 322, 323 | Long Distance Telephones..... | 459 |
| Jenny Pole Supports..... | 196 | Long Lever Hook..... | 462 |
| Johnson Boring Tool..... | 213 | Loops, Iron Chandelier..... | 57 |
| Joints, Macallen, Insulating..... | 53, 54 | Loricated Conduit..... | 309 |
| Jubilee Rain Shield and Reflector..... | 476 | Low Tension Okonite Wire..... | 332 |
| K | | Lugs..... | 255 |
| Kelsch Ceiling Board..... | 134 | Lundell Exhaust Fan Outfit..... | 290 |
| Keys, Gas-Lighting..... | 438 | Lundell Motors and Generators..... | 283, 287 |
| Keys, Telegraph..... | 453, 454 | Lungen Door Opener..... | 458 |
| Keystone, Rubber Base Switch..... | 457 | Lummer-Brodhun Screen..... | 379 |
| Kinsman Desk Light..... | 62 | M | |
| Kinsman Portable Desk Light..... | 62 | McClellan Combination Brace..... | 210 |
| Knife, Battery..... | 417 | McCreary Half Shades..... | 94 |
| Knobs, Glass..... | 164, 165 | McCreary Mica Dust Protectors..... | 94 |
| Knobs, Porcelain..... | 166-169 | McCreary Reflector Shades..... | 94 |
| Krupp Resistance Wire..... | 344 | McCreary Shade Holders..... | 94 |
| K. W. Angle Receptacle..... | 42 | McFadden Reflector Shades..... | 84 |
| K. W. Bracket Cut-outs..... | 42 | McIntyre Connectors..... | 466 |
| K. W. Cut-outs..... | 21 | McIntyre Dynamo Terminals..... | 255 |
| K. W. Receptacles..... | 42 | Macallen Insulating Joints..... | 53, 54 |
| K. W. Rosettes..... | 28 | Magnet Wire..... | 339 |
| L | | Magneto Bells..... | 462 |
| Laboratory Ammeters..... | 356 | Mail Boxes..... | 436 |
| Ladles..... | 225 | Main Line Fuse Blocks..... | 249 |
| Lag Screws..... | 154 | Malleable Iron Brackets..... | 159 |
| Lag Screw Wrenches..... | 208 | Mallets..... | 217 |
| Lamp Cord, Moulded Rubber..... | 343 | Manilla Rope..... | 148 |
| Lamp Cord, Okonite..... | 337 | Manson Tape..... | 175 |
| Lamp Guards, Wire..... | 51 | Marine Appliances..... | 106, 107 |
| Lamp Hanger, Adjustable..... | 149 | Marine Fixtures..... | 103-105 |
| Lamp Holder, Otis..... | 43 | Marine Switch, Waterproof..... | 49 |
| Lamp Holders, Universal..... | 130 | Mast Arm, Cutter's..... | 139 |
| Lamps, Incandescent..... | 110-117 | Mast Arm Pulleys..... | 145, 146 |
| Lamps, Miniature..... | 115-117 | Mats, Switch, Wood..... | 16 |
| Lamp and Scale..... | 381 | Matting, Applegate..... | 442 |
| Landee's Clamp..... | 207 | Maxstadt Fuses and Blocks..... | 470, 471 |
| Lantern, Wrought Iron..... | 71 | Measuring Machines, Wire..... | 232 |
| Lead Cable, Acme..... | 335 | Measuring Tapes..... | 216 |
| Learners' Sets..... | 454, 455 | Medical Batteries..... | 426-428 |
| | | Medical Battery Supplies..... | 428 |
| | | Medium Tension Okonite Wire..... | 332 |

| | Page | | Page |
|---|--------------|--|---------------|
| Plates, Wall..... | 58 | Push Switches, Hart..... | 17 |
| Plates, Zinc..... | 417 | Push Switches, New York..... | 17 |
| Platinum Wire..... | 343 | Push Switches, Stevens..... | 16 |
| Pliers..... | 200-203 | P. & B. Products..... | 178 |
| Plug Cut-outs, Edison..... | 22 | P. & S. Ceiling Rosettes and Buttons..... | 30 |
| Plug Cut-outs, Peru..... | 24 | P. & S. China Hanging Board..... | 134 |
| Plug Fuse Blocks..... | 22, 24 | P. & S. China Sockets and Receptacles..... | 37 |
| Plugs and Spring Jacks, Arc Light..... | 150 | P. & S. Circuit Breaker..... | 174 |
| Plugs, Attachment..... | 44 | | |
| Plugs, Edison Fuse..... | 22 | Q | |
| Plugs, Fuse, All Porcelain..... | 25 | Quadrant Cut-out..... | 27 |
| Plug, Ground Circuit, Telephone..... | 484 | Queen Cell Tester..... | 359 |
| Plug, Metallic Circuit, Telephone..... | 484 | Queen Horizontal Magnet Galvanometer..... | 380 |
| Pneumatic Receiver Cushion..... | 462 | Queen Portable Photometer..... | 378, 384 |
| Pocket Galvanometer..... | 465 | Queen Portable Wattmeter..... | 359 |
| Pocket Knives..... | 214 | Queen Standard Condensers..... | 383 |
| Pocket Screw Driver..... | 214 | Queen Standard Photometer..... | 377 |
| Pocket Voltmeter, Whitney..... | 355 | Queen-Wirt Illuminated Dial Instruments..... | 366 |
| Pole Changing Switch..... | 457 | Queen-Wirt Portable Meters..... | 357-359 |
| Pole Counter..... | 219 | Queen-Wirt Portable Ammeters..... | 357, 358 |
| Pole Hoods..... | 137 | Queen-Wirt Portable Voltmeters..... | 357, 358 |
| Pole Lock, Cutters'..... | 143 | Queen-Wirt Round Pattern Switchboard Instru- ments..... | 369 |
| Pole Lock, Fletcher's..... | 143 | Quick Break Switches..... | 239, 243, 246 |
| Pole Top Cable Terminal..... | 471 | Q. & S. Cord Adjusters..... | 49 |
| Pole Plates..... | 155 | | |
| Pole Protection Strips..... | 155 | R | |
| Pole Steps..... | 155 | Railway Cut-outs..... | 21, 316, 317 |
| Pole Supports..... | 196 | Ratchet Brace..... | 210 |
| Pony Insulator..... | 162 | Ratchet Burners..... | 437 |
| Pony Relays..... | 456 | Ratchet Switches..... | 9 |
| Porch and Piazza Reflectors..... | 102 | Reading Telescope..... | 381 |
| Porcelain Brackets..... | 170 | Receptacles, A. Z..... | 36 |
| Porcelain Clamp Insulators..... | 157 | Receptacles, Bryant..... | 40 |
| Porcelain Cleats..... | 31, 32 | Receptacles, Central..... | 36 |
| Porcelain Floor Insulators..... | 171 | Receptacle, Chapman..... | 45 |
| Porcelain Insulators..... | 166-169, 171 | Receptacles, Edison..... | 33, 39 |
| Porcelain Scales..... | 381 | Receptacle, Flush Plug..... | 46 |
| Porcelain Wiring Tubes..... | 173 | Receptacle, K. W..... | 42 |
| Porter Battery Motor..... | 445 | Receptacle, P. & S..... | 37 |
| Portables, Electric..... | 61, 62, 64 | Receptacles, P. & S. China..... | 37 |
| Portable Photometers..... | 378, 384 | Receptacle, Porcelain, Multiple..... | 66 |
| Porter's Easy Wire Cutter..... | 203 | Receptacles, Special Test..... | 42 |
| Positive Contact Switch..... | 439 | Receptacle, Stage..... | 44 |
| Post Hole Tools..... | 195 | Receiver Cords..... | 464 |
| Potential Indicators, Weston Illuminated Dial.. | 362 | Receivers, Telephone..... | 464 |
| Power Generators, Telephone..... | 463, 472 | Receptacle, Waterproof, Edison..... | 39 |
| Premier Battery Motor..... | 444 | Reels..... | 197, 198 |
| Pressed Metal Pushes..... | 403 | Reflectors, Aluminum..... | 99 |
| Pressure Gauges, Bristol Recording..... | 370 | Reflectors, Half..... | 94, 98 |
| Programme Clocks..... | 474 | Reflectors, Mirror..... | 100, 101 |
| P. T. Rosettes..... | 29 | Reflectors, Porch and Piazza..... | 102 |
| Pulpit Hood..... | 97 | Reflectors, Show Window..... | 102 |
| Pulley Blocks..... | 226 | Reflector Shades, McCreary..... | 94 |
| Pulleys, Sleet Proof..... | 144-147 | Reflector Shades, McFadden..... | 94 |
| Pump Starter..... | 303 | Reflectors, Tin..... | 97, 98 |
| Push Buttons..... | 398-407 | Reflectors, X-Ray..... | 93 |
| Push Switches, C. S..... | 18, 19 | | |

GENERAL INDEX—Continued.

| | Page | | Page |
|--|------|---|------|
| Registers, Ink Writing..... | 452 | Self-winding Clocks..... | 473 |
| Registering Speed Indicator..... | 230 | Semi-dry Battery, Samson..... | 410 |
| Regulating Rheostats.....294, 296, | 297 | Separable Ball Cluster..... | 60 |
| Regulating Socket, Brunt..... | 43 | Series Lamps.....110, 111, 114 | |
| Relays, Telegraph.....455, 456 | | Service Switch and Cut-out..... | 477 |
| Removable Fuse Holders..... | 326 | Sewing Machine Motor.....287, 288, | 292 |
| Repeating Coils..... | 464 | Shades, Celluloid..... | 97 |
| Resistance Coils.....382, 383 | | Shades, Half Reflector.....94, 98 | |
| Resistance Wire..... | 344 | Shades, Incandescent.....84- 93 | |
| Return Call Push..... | 406 | Shades, McCreary..... | 94 |
| Reynolds Bug Cut-out..... | 27 | Shades, McFadden..... | 94 |
| Rex Wood Box Bells..... | 393 | Shades, Opal.....84, 85 | |
| Richmond Plug Panel Board..... | 252 | Shades, Paper..... | 97 |
| Ridge Irons..... | 153 | Shade Holders..... | 52 |
| Rings, Socket..... | 49 | Shallenberger Ampere Hour Meter..... | 276 |
| Ritter Soldering Copper..... | 222 | Shallenberger Wattmeter.....274, 275 | |
| Rival Annunciators..... | 388 | Shears, Brush..... | 219 |
| Rods, Guy..... | 156 | Sheet Fibre..... | 183 |
| Rod Polish, Hoffman's..... | 177 | Sheet Rubber..... | 183 |
| Rope, Manilla..... | 148 | Shovels, Post Hole..... | 195 |
| Rope, Trimmers..... | 143 | Show Window Reflectors..... | 102 |
| Rosettes and Cleat..... | 31 | Shunts for Galvanometer..... | 382 |
| Rosettes, Central..... | 28 | Shunt Terminals for Weston Instruments | 368 |
| Rosette, Fixture..... | 69 | Side Brackets, Upright..... | 153 |
| Rosettes, Fuseless..... | 30 | Sign Lamps.....113, 117 | |
| Rosettes, K. W..... | 28 | Signal Bell..... | 449 |
| Rosettes, P. T..... | 29 | Signal and Burglar Alarm Clocks..... | 474 |
| Round Bulb Lamps..... | 113 | Silver Plated Mirror Reflectors.....100, 101 | |
| Round Pattern Instruments.....367- 369 | | Simplex Tree Insulator..... | 174 |
| Rubber Base Switches, Circular..... | 438 | Single Connectors..... | 468 |
| Rubber Gloves..... | 199 | Single Stroke Bell..... | 396 |
| Rubber Hook Insulator..... | 172 | Skeleton Bells..... | 396 |
| Rubber Socket Covers..... | 49 | Skeleton Lamp Cleat..... | 150 |
| Rubber, Hard, Sheet..... | 183 | Slate..... | 257 |
| Ruhmkorff Induction Coils..... | 440 | Sleet Proof Pulleys, Fletcher.....144, 146, 147 | |
| Rules..... | 215 | Sleeve Pulleys, Cutter's..... | 145 |
| S | | Smith Jump Spark Burner..... | 437 |
| Safety Catch Holders..... | 248 | Smoothing Irons, Electric..... | 124 |
| Samson Cord..... | 148 | Sneak Fuses, Maxstadt..... | 471 |
| Samson Batteries.....410- 412 | | Socket Bushings..... | 49 |
| Sawyer-Man Cut-outs..... | 21 | Socket Covers..... | 49 |
| Sawyer-Man Lamps.....112- 114 | | Socket Hooks..... | 50 |
| Saws..... | 216 | Socket Rings..... | 49 |
| Scales..... | 381 | Sockets, Bryant.....34, 35 | |
| Scarf Pin Outfits..... | 440 | Sockets, Central..... | 36 |
| Scheeffe Wattmeter..... | 273 | Sockets, Edison..... | 33 |
| Scissors..... | 219 | Sockets, P. & S. China..... | 37 |
| Screws, Lag..... | 154 | Sockets, Regulating..... | 43 |
| Screws, Wood..... | 180 | Socket, Street Hood..... | 108 |
| Screw Drivers.....214, 220, 221 | | Sockets, Waterproof.....39, 40 | |
| Screw Glass Insulator..... | 172 | Sockets, Wall.....36- 38 | |
| Search Light Arc Lamp..... | 481 | Solder..... | 176 |
| Sechrist Automatic Switch..... | 475 | Solder Pot, Electric..... | 123 |
| Sectional Switch, Eclipse..... | 439 | Soldering Coppers..... | 222 |
| Segments..... | 264 | Soldering Irons, Electric..... | 125 |
| Self-starting Box for Pumps..... | 303 | Soldering Paste, Burnley..... | 176 |
| | | Soldering Salts, Central..... | 176 |

[illegible]

| | Page | | Page |
|---|-------------------|-------------------------------------|----------|
| Western Brushes..... | 263 | Wire Measuring Machines..... | 232 |
| Western Union Call Box..... | 448 | Wire Meter..... | 232 |
| Western Union Insulators..... | 160 | Wire, Okonite and Products..... | 332-338 |
| Western Union Pins..... | 153 | Wire Peeler, Perry..... | 219 |
| Western Union Standard Relay..... | 455 | Wire Rope Clamp..... | 145 |
| Westfield Grip..... | 205 | Wire Rope Insulator..... | 143 |
| Westinghouse Arc Globes..... | 320 | Wire Terminals..... | 255 |
| Westinghouse Arc Lamps..... | 318, 319 | Wiring Conduits..... | 308-312 |
| Westinghouse Brushes..... | 263 | Wiring Tubes..... | 173 |
| Westinghouse Circuit Breaker..... | 269 | Wirt Dynamo Brush..... | 260 |
| Weston Arc Light Ammeter..... | 360 | Woodford Diminisher..... | 476 |
| Weston High Range Voltmeters..... | 348 | Wood Base Switches..... | 438 |
| Weston Illuminated Dial Instruments..... | 361-363 | Wood Box Bells..... | 393 |
| Weston Instruments..... | 346-356, 360-363 | Wood Brackets..... | 152 |
| Weston Portable Ammeters..... | 355, 356 | Wood Cleats..... | 181, 182 |
| Weston Portable Galvanometer..... | 360 | Wood Mats..... | 16 |
| Weston Portable Instruments..... | 346-355 | Wood Moulding..... | 181 |
| Weston Portable Mil-ammeters..... | 354 | Wood Pins..... | 153 |
| Weston Portable Mill-Voltmeters..... | 354 | Wood Pulley Blocks..... | 229 |
| Weston Portable Volt-ammeters..... | 354 | Wood Screws..... | 180 |
| Weston Portable Voltmeter, Alter. and Direct Current..... | 349-351 | Wrenches..... | 209 |
| Weston Portable Voltmeters, Direct Current..... | 346-348 | Wrenches, Lag Screw..... | 208 |
| Weston Round Pattern Instruments..... | 367, 368 | Wrenches, Splicing and Tie..... | 205 |
| Weston Portable Wattmeters..... | 353 | Wright Wrenches..... | 209 |
| Wheatstone Bridges..... | 374-376, 382, 383 | Wrought Iron Turnbuckles..... | 154 |
| White China Wiring Tubes..... | 173 | Wurts Lightning Arrester..... | 270, 271 |
| Whistles, Speaking Tube..... | 434 | | |
| Whitney Pocket Voltmeter..... | 355 | X | |
| Whitney Portable Testing Set..... | 376 | Xntric Switches..... | 12 |
| Williams-Abbott Extension Bells..... | 462 | X-Ray Reflectors..... | 93 |
| Williams-Abbott Magneto Bells..... | 462 | | |
| Window Reflectors..... | 102 | Y | |
| Window and Door Springs..... | 441 | Yale Lock Burglar Alarm Switch..... | 442 |
| Windlasses..... | 140, 141 | Yankee Automatic Drill..... | 213 |
| Wilson Soldering Torch..... | 223 | Yankee Screw Driyer..... | 221 |
| Wire..... | 331-344 | Yeager Soldering Salts..... | 176 |
| Wire, Electrolier, Okonite..... | 336 | | |
| Wire, Fuse..... | 126 | Z | |
| Wire Guages..... | 230 | "Zeco" Enclosed Arc Lamps..... | 478, 479 |
| Wire Holder, Gem..... | 157 | Zero Frost..... | 129 |
| Wire Lamp Guards..... | 51 | Zincs..... | 416 |
| | | Zinc Plates..... | 417 |

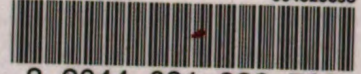


This book should be returned to
the Library on or before the last date
stamped below.

A fine of five cents a day is incurred
by retaining it beyond the specified
time.

Please return promptly.

Eng 3999.7.5
General catalogue (of) electrical s
Cabot Science 004829893



3 2044 091 936 799

